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ABSTRACT

This project was established to experiment with a work-study program for mentally retarded youth in the hope that it would improve the vocational functioning of these adolescents. The 300 male students, aged 14 to 18 with IQs ranging from 43 to 83, were divided into an experimental group and a control group for the purpose of the project. The experimental group was treated in a program where the following changes were instituted: the time spent in academic pursuits was reduced from 5 days to 3 days; the school curriculum was modified to include a greater emphasis on vocationally-related material; and the students were assigned to a community workshop for additional training and rehabilitation services on the 2 days they no longer attended school. The control group remained in school for the full 5 days per week. Results showed that more of the experimental group completed their year in school than did the control group. Fewer of the experimental group were institutionalized during or after the project, and some showed signs of personal growth. (GEB)

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A Cooperative Vocational Pattern *for* In-School Mentally Retarded Youth

Occupational Center of Essex County
391 Lakeside Avenue
Orange, New Jersey

Final report from The Vocational Rehabilitation Administration,
Department of Health, Education, and Welfare, Washington, D.C.
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A Cooperative Vocational Pattern *for* In-School Mentally Retarded Youth

Project No. RD-1189

by

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SIGNIFICANT FINDINGS FOR THE REHABILITATION WORKER

A work-study program for mentally retarded adolescents was conducted on a cooperative basis by three existing social agencies: a community sheltered workshop, a state rehabilitation agency and a school system. The program attempted to ease the transition of retarded adolescent boys from the world of school to the world of work by providing them with a "transitional" training experience which combined aspects of both of these settings. Participants in the experimental program, attended school only three of the usual five days, and were assigned on the remaining days to a community workshop for additional training and rehabilitation services. The program at the workshop included paid work experience on a piece-work basis, intensive individual and group counseling, counseling services to parents, placement, and field trips.

The impact of the program on the vocational adjustment of the students who participated was evaluated by comparing them to a matched Control group who remained in the regular five day per week school program. Comparisons were in terms of improved functioning on a battery of academic and vocationally relevant tests, and in terms of follow-up data of post-Project educational, vocational, and social activities. Case history material for Experimental subjects was also studied.

The Subjects were 300 male students (150 Experimentals and 150 Controls), whose tested IQs were in the 43-83 range. They ranged in age from 14 to 18 years, so that some were too young for this to be their final school year. Some other important characteristics of the sample were: the great majority were Negro; almost all were from the lowest socio-economic groups; many came from multi-problem families; many had had trouble with the law, many exhibited behavior patterns of open hostile aggressiveness or of self defeating passive resistance; and many reported work histories before coming into the Project. The general impression was that although they were functioning academically on a retarded level, in most cases this seemed to be due to socio-cultural and emotional problems rather than inherent organic limitations.

The study hypothesized that after the year of Project participation the Experimental group would 1) show greater improvement on the test battery, and 2) show better post-Project vocational adjustment than the Control group. Hypothesis 1 was not supported. Hypothesis 2 was partially supported in that there was a somewhat higher percentage of employment among members of the Experimental group, particularly those with IQs below 75, or those with higher social maturity quotients, and more Experimental than Control subjects, particularly in the group with IQs over 75, went on to complete some more advanced educational or vocational training. On the other hand, the two groups did not differ in terms of job stability, nor in the percentages of students who were subsequently involved in neither work nor school.

Some other positive contributions of the Project included: 1) the fact that more of the Experimental subjects completed the Project year in school; 2) the fact that fewer of the Experimental than control group students were institutionalized during or after the Project or reported new incidents of difficulty with the law; and, 3) the observation from the case history material that some of the participants showed signs of personal growth in the course of the year.

Limitations in our effectiveness were probably due to: the nature of the particular sub-group of retardates served, as described above, which was different from the kind of subjects for whom the program was planned; and the fact that the work available in the workshop was below the level of capability of many of the subjects. These observations lend support to the idea that existing diagnostic procedures need to be revised so that there is clearer differentiation made amongst some of the sub-groups now jointly labeled as "retarded", which would in turn facilitate a system of differentiated programming.

The following recommendations, which have a general relevance in the field of rehabilitation, are made:

1. All the social agencies currently working with persons labeled as "retarded" should work together for a revision of existing diagnostic practices so that youngsters whose limited functioning is a result of emotional or socio-cultural problems are differentiated from youngsters who are more inherently limited.
2. Differential diagnostic procedures should then be followed by clearly differentiated curriculum programming in the schools, or clearly differentiated vocational planning.
   a. The present program—with the very simple work available in the sheltered workshop—might be appropriate to the needs more limited students.
   b. For many of the students future work study programs should strive for higher goals for the students, including higher level and more varied training, and preparation for skilled or semi-skilled work. There should be considerably less emphasis on placement of the youngsters in marginal fields of employment.
3. Extensive mental health services should be given to all youngsters diagnosed as educationally retarded due to emotional and social problems. All subsequent programming for them, whether towards higher eductional or higher vocational goals, would have to be accompanied by intensive and continuous supportive services in order to be successful.

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Chapter I

INTRODUCTION

In recent years persons working with mentally retarded youth have become increasingly interested in the vocational capabilities and adjustments of these youths. This interest has been concerned with studying the nature of some of the adjustment difficulties which are presented by this group, as well as trying to find ways of solving these problems. Several different kinds of agencies and professional personnel have been involved in this work through sheltered workshops, special education facilities, and rehabilitation services.

It has been observed that the final school experience does not always fully achieve the goal of affecting a smooth entry of the mentally retarded into competitive employment. It has also been observed that the development of a better coordination of the vocational programs of the school system, the sheltered workshop, and the state rehabilitation agency during the terminal school experience might indeed help the mentally retarded in their transition from school to work.

Thus, the present Research and Demonstration Project was based on the concept that where the three agencies (cited above) exist, the mentally retarded youth would be most effectively served through a formal organization of these agencies into a cooperative program to be initiated while the youth are still in school attendance.

GENERAL BACKGROUND OF THE PROJECT

Progress achieved in the vocational rehabilitation of mentally retarded youth, in the past generation, has been manifest in a number of areas. It is revealed in the expanding efforts of many communities in the United States to provide mentally retarded young people with greater rehabilitation opportunities; in the experimentation with new approaches at various agencies and institutions, which has been encouraged by a more favorable attitudinal climate and public support; in the vast expansion of rehabilitation reports in the literature of mental retardation; in the steady growth of the number of mental retardates rehabilitated by state vocational rehabilitation agencies in recent years; and in the fact that the vocation rehabilitation of the mentally retarded has become an increasingly accepted aspect of the total vocational rehabilitation movement.

The range of analyses and prescriptions for improvement of rehabilitation programs is suggested in the pages of Research Relating to Mentally Retarded Children (Washington, D.C., U.S. Government Printing Office, 1960, 92 pages). This publication indicated that one of the weak links in the rehabilitation of the retarded lies in current practices attempting to bridge the community and school. Similarly, Jack C. Dinger (in Exceptional Children, March, 1961, 27:7:353-360) suggests that curriculum modifications in the last year of schooling could positively influence the post-school adjustment of mentally retarded youth. And Julius S. Cohen (in the American Journal of Mental Deficiency, November, 1960, 65:3:371-5) raises relevant questions about rehabilitation failures in this group.

Institutions for the mentally retarded introduced useful work for retarded residents in the Nineteenth Century. And, just about a generation ago, Hungerford and his associates in New York City introduced vocational concepts into the public school curriculum in the form of Occupational Education. With the increased concern about techniques of preparing mentally retarded youth for useful work through school and post-school special education programs, there has been a recognition that the major participants in an improved service program would be, of necessity, a school system, a state vocational rehabilitation agency, and a community workshop. Although there had been a noticeable trend in the literature toward cooperative programs, in most cases, they combined two of the three mentioned agencies. For example, Joseph Marra and associates reported on a program in Hartford, Connecticut which successfully welded together a rehabilitation center, a parents' association and a state vocational rehabilitation agency (Chernov, Brina E. and Carley, Edward J., Facing the Challenge of Mental Retardation, Journal of Rehabilitation, 24:5:8-10, September-October, 1958). Prior to the inception of the present study, few, if any, of the programs in this area had combined the resources of a school system, a state vocational rehabilitation agency and a community workshop. Yet, insofar as mentally retarded youth are concerned, such a cooperative enterprise seemed to hold promise for improving the effectiveness of both the special education and the vocational rehabilitation programs.

PURPOSES

The Project was designed to serve the following purposes:

1. To demonstrate the techniques of providing comprehensive vocational rehabilitation services on a cooperative basis to mentally retarded youth completing their last year of special education in a public school system.
2. To demonstrate the creation, development, and implementation of a vocational rehabilitation program for mentally retarded school youth in which the cooperative participants are a public school system, a state vocational rehabilitation agency and a community workshop.
3. To conduct research into the impact of such a program upon the subsequent vocational development of mentally retarded students.
4. To develop a pattern of community relationships which may serve as a guide to vocational rehabilitation programs in other communities.

THE COOPERATING AGENCIES

The three agencies involved in the present cooperative endeavor were: The Occupational Center of Essex County, a sheltered workshop serving primarily the mentally retarded; The Montgomery Street School, a special educational facility for the retarded within the Newark School System; and the New Jersey Rehabilitation Commission, through the facilities of their office in Newark, New Jersey.

The Occupational Center of Essex County

The applicant agency for the Project, the Occupational Center of Essex County, is a community sponsored, non-profit rehabilitation service, concerned primarily with the vocational rehabilitation of the mentally retarded. It has been providing this service in Essex County for the past twelve years.

The Occupational Center occupies a physical space of approximately 11,000 sq. ft., most of which is taken up by its various workshop facilities. The workshop is broken into several separate areas for persons involved in the different aspects of the Center program: Evaluation and Guidance: Personal Adjustment Training: Vocational Training: and, Extended Sheltered Employment. Still another separate physical area was made available for the purposes of the project.

In all of these areas, the work performed by trainees or sheltered workshop employees consists of the following: packaging, small parts assembly, mailings, salvaging, and other kinds of light bench assembly work. These are mostly hand operations performed with minimal machine assistance, although some machinery is involved, such as staples, a kick press, a drill press, assembly belt and heat sealers. The work is performed on the basis of sub-contract arrangements made with small businesses or industries from the local community. This means that the work available at any given time is highly variable.

Most trainees and sheltered employees are paid for the work they do on a "piece work" basis.

That is, each person is paid according to his own productivity. The price for each job is established on the basis of a time and motion study performed with persons of average ability with the price set so that such a person could, theoretically, earn the legal minimum wage of $1.25 per hour.

The regular Center program serves approximately eighty (80) clients at any given time, about forty (40) of whom are in extended sheltered employment, with the rest in different phases of the evaluation and training program. Approximately seventy (70) new trainees, both male and female, begin at the Center each year in the forty-two (42) week training program. Ninety percent (90%) of these are diagnosed as "retarded", with IQs ranging from 50-75. Retardation is here defined in broad terms, in the sense that the etiology of the low level of functioning of the clients is quite varied. In addition to the retardation, a number of clients have secondary disabilities, such as: simple schizophrenia, orthopedic difficulty, hearing or speech loss, and others.

The regular professional staff at the Center consists of: the Executive Director, a counselor, and three workshop supervisors. In addition, for the purposes of this Project additional professional staff was hired consisting of the following persons: a Project Coordinator, a research psychologist, a clinical psychologist, two rehabilitation counselors, a job placement counselor, and a workshop supervisor.

The Newark School System

The program for the mentally retarded in the city of Newark, New Jersey was begun in 1910. An organizational plan encompassing the elementary, junior and senior high schools, and pre-vocational or trade schools has expanded over the years, from a token number of three classes to approximately 160 classes (140 for educable retardates and 20 for trainable retardates) serving a total of between 2,000 and 2,500 students. Within this structure, children of ages six through twelve years are served in their own school neighborhoods in special classes in the elementary schools. There are also special classes in the junior and senior high schools, for ages 12-18, to provide extended opportunity for mentally retarded boys and girls from elementary special classes who indicate capacities for academic achievement over and above that expected from the general group of pre-adolescent mentally retarded. Those 12-14 not entering special classes in the junior and high schools are offered the opportunity to pursue pre-vocational training in a junior prevocational school, and then in a senior pre-vocational or trade programs. The 12-18 year age group constitute the largest group programmed in special education. The classes on all age levels attempt to provide a balanced program including academic, cultural and industrial arts offerings.

The core of the special educational personnel are required by the educational laws of the state of New Jersey to be proficient in those skills necessary for implementing the proper methodology for pupil growth in basic school subjects. Ancillary personnel, such as teachers of industrial arts, fine arts, speech, music, library, etc. coordinate their efforts with those trained to teach the mentally retarded. In addition, where possible, an effort is made to provide individual guidance for pupils, with a specific emphasis placed on the vocational aspects of guidance and job placement during the terminal years of the program (ages 15-18).

One of the special educational facilities in the Newark School System is the Montgomery Street School. This was originally built to accommodate an elementary school population, but because there was a need for more classes for the mentally retarded adolescent, the school was entirely given over to this program. Endeavoring to provide pre-vocational offerings for an expanding population of adolescent boys and girls in a school building not designed for such a program affected a second change—the assignment of this school for adolescent boys only. Though program adaptations were made repeatedly for the boys, it was decided because their broad occupational needs were not being met completely, that a new school or an adequate addition to Montgomery would have to be provided. A new addition was approved by the Newark Board of Education in 1962. This was begun in 1963, at the same time that the present federal Project involving the Occupational Center of Essex County and the Montgomery Pre-Vocational School was launched. The construction program was completed in 1966.

Since the Montgomery School building proper was to be refurnished in conjunction with the building of the new addition, many changes in programming and class organization occurred with a resultant lack of stability in pupil adjustment and opportunity to achieve or maintain achievements. This program of dislocation due to the building program, coming while the present Project was in operation undoubtedly affected the outcome of the Project.

The staff of the Montgomery Street School which cooperated with the Occupational Center in the present study, exclusive of school nurse, attendance officer, cafeteria and custodial personnal and assistants to the principal, totals 65. This is broken down as follows: 40 teachers in the fields of academic study, music, art, physical education, and speech; 18 shop teachers; 3 guidance teachers; and 4 teachers involved in other "helping" areas.

Another division of the Newark School System which cooperated in the present study is the Department of Child Guidance, founded in 1928, with the approval of the Commonwealth Fund of America. Administered by the Superintendent of schools through the Assistant Superintendent in Charge of Special Services, the Department of Child Guidance offers a clinical program of psychiatric, psychological and social work services for students in the entire Newark School System, including the retarded. Each pupil recommended for placement in a special class in the Newark Schools is screened on an individual basis for such placement by certified psychologist of this department.

At the start of the present Project in 1963, the staff of this department consisted of the following: a director, a clinical coordinator and a staff of 4 consulting psychiatrists, 12 school psychologists, and 26 school social workers. This staff has expanded in the interim period to include a total of 40 social workers and 11 social work interns. A greater number of psychologists are also budgeted for, but have so far been unavailable.

The New Jersey Rehabilitation Commission

The Rehabilitation Commission is the state agency for vocational rehabilitation services to the handicapped, aimed at raising the level of their vocational functioning in the direction of the maximum use of potential. The services provided are individualized and are theoretically determined for each person on the basis of what it is felt will help to function better in terms of work. In reality, of course, such determinations are limited by the training and placement facilities that are available.

Since the inception of the New Jersey Rehabilitation Commission's Mental Health program in 1956, there has been a steady growth in rehabilitations of the mentally retarded. Thus, 31 mentally retarded persons were rehabilitated in 1957, 114 in 1959, 165 in 1961, and 26., in 1962. The number of rehabilitations of the retarded had multiplied by 6.5 times in the six years just prior to the inception of the present Project. By the time the Project was completed in 1966, the number of rehabilitations in this field was 569, which represented more than twice as many in 1963. That latter figure include some of the students who participated in the present study.

Service to a retarded client begins with a variety of evaluative procedures, including a survey interview; a general medical examination; if recommended other special medical examinations; a psychological examination; and vocational testing. The psychological testing and vocational testing are usually performed through the New Jersey Association for Retarded Children. On the basis of this examination, a recommendation might be made for further schooling, if the person is thought capable, or for On-the Job-Training (OJT), or for training and placement in a sheltered workshop. In subsequent vocational counseling and placement activities these recommendations are pursued. In case of special needs related to existing secondary disabilities, other services might be provided such as: surgery, glasses, orthodonture, corrective shoes, speech therapy, and possibly psychotherapy. With these latter services, which are only indirectly of a vocational nature, the criteria for deciding when they will be given, is whether or not it is thought that they will be useful to the person in obtaining employment.

Interaction of the Cooperating Agencies

Prior to the inception of the present program, there had already been a history of cooperative activities on the part of the three agencies involved. For example, the Occupational Center had a working relationship with the New Jersey Rehabilitation Commission through which clients were referred by the latter agency for vocational evaluation and training at the Center. Also, since 1958, the Rehabilitation Commission had maintained a cooperative relationship with the Newark School System, through which a state rehabilitation counselor was assigned to the Special Education Department of the Newark School System to work closely with school personnel in the rehabilitation of the retarded. At the present time, the number of special counselors assigned to this task has been increased to two.

The present Project however, represented the first time that all three agencies have worked together on a single program. The roles assigned to each agency are described below.

As the agency which applied for and received the Project grant, the Occupational Center was responsible for the planning, implementation and evaluation of the program. However, the New Jersey Rehabilitation Commission and the Newark Board of Education participated as advisory agencies in the various phases of the project. They served these functions through participation in the Project Advisory Committee, and in regular Team Meetings. Both these activities will be described below.

In addition, the New Jersey Rehabilitation Commission, accepted as clients the students who participated in the program, and upon doing so exercised its regular functions with such students, providing intake, evaluation, physical restoration, additional training, placement and follow-up as it deemed appropriate. The follow-up in some cases included additional vocational counseling.

The Newark Board of Education retained the major responsibility for establishing and implementing educational programs and standards for the students in the Project. Thus, the school provided a basic classroom experience for project students and assisted the project in the following additional ways: making available school records and reports related to the Project population; release of staff to aid in planning the Project program; providing achievement tests for pre and post Project evaluations; providing facilities for pre and post Project testing of students; participation in recruitment of students for the Project; and, providing a Social Worker to serve as liasion between the Project and the students' parents.

The Project Advisory Committee

The Project aims involving the cooperative arrangement between three agencies and the utilization of various community resources in obtaining sub-contracts and job opportunities for clients demanded a relatively large and viable advisory committee.

Formally, it was possible to rely on individual members of the Board of Directors of the Occupational Center and on the workshop supervisor for the development of sub-contracts. This obviated the necessity for any formal involvement of these persons in an advisory committee. In view of this, the formal Advisory Committee evolved into a Committee composed of representatives of education and rehabilitation. Thus, the Advisory Committee had the following membership: Senior Project Staff, Project Consultants, the Director, Assistant Director, Administrative Supervisor and the District Supervisor of the New Jersey Rehabilitation Commission, the Director and Clinical Director of the Department of Child Guidance and Special Education (Newark School System), and the State Director of Special Education and the Director of Education of the Handicapped, both, of the New Jersey Office of Special Education.

Meetings of the Advisory Committee were initiated by the Project Administration at the Occupational Center on a regular basis in the first year and when it was necessary thereafter. These meetings had either one of two purposes: to aid in the solution of a major problem which may have arisen in the progress of the Project, related to policy decisions, or to conflicts and misunderstandings arising in the effort to integrate the work of so many agencies and persons, and therefore necessarily requiring modification of the established policies of each of these agencies and the giving up of personal or agency prerogatives; and to impart information about the activities and progress of the Project to the principle persons involved. The Advisory Committee met approximately three or four times per year, although in the final year of the program, these meetings were less frequent.

Project "Team" Meetings

Since a variety of persons were working with and involved to a greater or lesser degree with each of the youngsters participating in the Project, it was necessary to establish a formal means for the sharing of data, observations and experiences with each of the students, and by this sharing to try to develop more effective means of working with each student and planning with him for the future. For this purpose the Project "team" met on a weekly basis for case conferences, usually to discuss a youngster who was presenting a particular problem either in the Project, or in school, although an effort was made to discuss each of the youngsters at some time in the year. The "team" which met for this purpose consisted of: the Project Director, Coordinatory, Clinical Psychologist, Workshop Supervisor, Job Placement Counselor, Rehabilitation Counselor or Interns, the Assistant Principal and Guidance Counselor at the Montgomery Street School, and the classroom Teachers. One of the Rehabilitation Counselors mentioned above, was stationed part-time in the Newark office of the Commission, and part-time at the Occupational Center for her direct work with the Project students, and thereby served as a liaison between the two agencies. She therefore represented the Commission at these meetings.

HISTORY OF THE PROJECT

The Occupational Center of Essex County, having instituted a program of work evaluation and sheltered workshop employment for the retarded, wanted to expand its efforts through participation in research. The present Project resulted from this interest. This section will highlight some of the major events and decisions in the development, planning and implementation of the program.

Significant Dates

The planning and preparation of the Project proposal under the auspices of the Director of the Occupational center of Essex County, extended over a period of about three years. On January 25, 1962, the Newark Board of Education formally approved participation by the Newark School System in the Project, following the approval of the Assistant superintendent in charge of the Office of Special Education Services. And on August 10, 1962, the New Jersey Rehabilitation Commission followed suit by granting its formal approval. In the meantime, the application for funding of the Project was submitted to the National Advisory Council on Vocational Rehabilitation of the Office of Vocational Rehabilitation of the Department of Health, Education and Welfare on July 19, 1962. Notification of the granting of funds by VRA was received on November 9, 1962.

The period of the grant was from March 1, 1963 to February 28, 1967. The schedule of activities during this period was as follows:

March, 1963—September 1, 1963—Screening the students for the first year. Preparing the curriculum. Organizing the service and the staff.

September, 1963—August, 1964, September, 1964—August, 1965, and September, 1965—August, 1966—Service to the students, consisting of a different group in each of these years. Collection of data and preliminary follow-up and evaluation.

September, 1966—February 28, 1967—Follow-up studies and analysis of the date. Preparation of reports.

Recruitment and Training of Staff

Staffing of the Project has been a source of difficulty for much of its duration. A variety of factors have been responsible for the problem. First, there seemed to be a shortage of professional personnel in the local area, so that the Project was thrust into competition with other agencies in the community or trained staff members. In this competition, the Project was often at a disadvantage owing to the fact that the salary levels in the Project had been made comparable to those prevailing in the state rehabilitation agency, a measure undertaken as part of the cooperative relationship among the participating agencies. Some positions remained unfilled for a relatively long time, so that eventually adjustments in the salary scale had to be made. This partially helped to alleviate the problem. A second source of difficulty, however, was the fact that considerable turnover in staff occurred, such that, except for the Project Director, only one staff member was with the program during the entire service period. In general, it can be assumed that this staff instability may have limited the effectiveness of the program.

On the other hand, the staff engaged in a variety of training activities in an effort to improve its effectiveness. These included the case conferences, seminars on interpreting and making use of vocational and psychological test results, and on counseling techniques, the invitation of guest lectures to speak to staff, and field trips to other institutions engaged in the broad field of rehabilitation particularly with the retarded.

The professional staff itself was augmented in its counseling services to clients for one and a half years by an average of two interns per half year from the graduate programs in rehabilitation counseling leading to the master's degree at Seton Hall University, South Orange, New Jersey and New York University, New York City. An extern in school psychology from Rutgers University was also supervised for one summer.

Chapter II

THE POPULATION

The present program was undertaken for the purpose of developing a technique for providing comprehensive vocational rehabilitation services to mentally retarded youth completing their last year of special education in a public school system. The population to be served by the program was defined in accordance with this purpose. However, in the course of the Project, some problems were encountered in recruitment which necessitated some deviations from the original plan. In addition, it was observed that the group of students actually served by the program had certain personal and social characteristics not anticipated by the program planners. This chapter will discuss the original criteria for student participation in the Project, the characteristics of the students served, the recruitment and screening procedures, problems encountered in recruitment and how these problems were resolved.

PROPOSED CRITERIA FOR POPULATION

According to the original proposal, the population of this study was to comprise an annual caseload of 100 mentally retarded male students (fifty experimentals and fifty controls) in current attendance in special classes for the mentally retarded at the Montgomery Street School of the Newark Public School System. They were to be selected on the basis of the following criteria:

1. Age 15 1/2 or over with preference being given to the older group.
2. Expectations that the current year of attendance in the Newark School System would be the student's final year of attendance and that at the end of that year, he would enter the labor market or intensive vocational training.
3. Mental retardation constituted a major deterrent to competitive employment for these students.
4. Suitable service through the Project would be expected to reduce the impact of this deterrent.
5. Mentally retarded students with severe physical and/or psychiatric disabilities which require specialized services not available in this Project would be excluded.

RECRUITMENT AND SCREENING PROCEDURES AND PROBLEMS

The selection of students proceeded according to the following steps: First, classroom teachers at the Montgomery Street School submitted a list of names of students whom they considered as possible candidates for the Project program. The students were then interviewed by representatives of the school guidance department and administration during which interview they were told about the Project and asked if they wanted to take part in it. If the student agreed, the representatives of the school discussed the matter with his parents, obtaining written permission to place the student in the Project from them. When such permission was granted, a representative of the Rehabilitation Commission went to the school to conduct Survey Interviews with each of the boys who was being considered for the Project, and arranged for each boy to be given a general medical examination. The school made it easier for us to obtain these medical examinations by assigning us staff members to transport the boys in groups, to the office of the examining physicians. At the same time that all of this was occurring, members of the Project staff of the Occupational Center were provided rooms at the school for the testing and evaluation of the boys.

The screening procedures mentioned above provided considerable information for the selection of students. This data was supplemented by data from the school files. Then based on the available information, the experimental and control groups were matched, insofar as possible, on the following variables: age, intellectual ability, socio-economic status, social and emotional maturity, school achievement and scores on a battery of tests of manual dexterity, job interview behavior, job application and job information. Students were assigned to the Experimental and Control groups on a random basis after the matching process had been completed. The selection and matching of students was done by the research psychologist of the Project staff.

This procedure for recruitment, screening and selection adequately met the needs of the Project for its first two service years. The school personnel submitted to us a list of about 150 names each year, and this was eventually narrowed down to the required 100, allowing for such things as students changing their minds at the last minute, dropping out over the summer or being absent from school and therefore not readily available for assessment.

For the third service year of the Project, however, the school provided an initial list of much fewer than 100 names. The result was a period of temporary uncertainty about the continuation of the Project. Several factors seemed to be responsible for this scarcity. The primary problem was related to the size of the actual population available, a rather high proportion of which had been exhausted by the first two years of the Project. The Montgomery Street School has a student body of approximately 600 students, ranging in age from 13 to 17 years. On a strictly proportional basis, about 100 to 150 would be expected to be in the age group of 15 1/2 years or older. But, actually the number in this age group is considerably less, because the majority of these youngsters tend to quit school as soon as they legally can, that is, on reaching age 16. The age criterion for participation in the Project was narrowing down the available population. Another contributing factor was that whereas in earlier years, most of the students and their parents, when asked about taking part in the Project, had agreed to do so; in this final year, many of the students interviewed had responded negatively. The reasons for the negative responses were unclear, but seemed to have been due to vague negative feelings based on information from other students or on advice from teachers or other school personnel that the students may have been too young or too sophisticated for this program.

Another factor may have been that the school was scheduled to open its new building with the new shops at the beginning of the next school year (September, 1965) and some youngsters thought that being in the Project would deprive them of the chance to use these facilities.

In order to solve this population problem, it was arranged that another series of preliminary interviews would be conducted by Project personnel. The Project Coordinator and clinical psychologist interviewed all the boys who had refused to participate or whose parents had not signed the permission slip, in order to assess the reasons for the refusal, to provide clarifying information about the program, and if possible, to try and alter the decision. In addition, a further list of possible candidates was obtained from the school in the form of a list of boys who were not yet attending the Montgomery Street School, but were expected to be transferred there in September from the South Market Street School and the Arlington Avenue School, two other special education facilities in the Newark School System for retarded students, which act as "feeder" schools for Montgomery. Parental permission was obtained by a team of Social Workers who made visits to the boys' homes. Although a few boys still did not wish to take part in the Project, the number of those refusing was very markedly reduced, and a sufficiently large pool of names was acquired to enable us to complete the selection and matching process.

The solution to the recruitment problem did, however, necessitate one important deviation from the originally established criteria for participation. The age limit was lowered to include boys of 14 years old and over, although an effort was still made to give preference to the older group. This meant, though, that for many of the boys, the year of participation in the Project could not be the final year of attendance in school.

SERVICE STATISTICS

A summary of the services provided by the Project related to evaluations and participation in the program, and the number of students receiving such services in the combined 1963-64, 1964-65 and 1965-66 samples is given below.

Participation in the Project

The number of students screened for the Project was 442. Of these, 300 were accepted for participation, 150 being designated as the Control group and 150 as the Experimental group. Of the 150 Experimentals, 136 completed the Work Evaluation phase of the program, 112 completed the Personal Adjustment Training phase and 105 completed the Vocational Training phase. Fifty (50) students also went on to take part in the Project's extended summer training program; 22 in the 1963-64 group; 16 in the 1964-65 group; and 12 in the 1965-66 group.

Of the 150 students designated as Experimental subjects, 45 did not complete the program. Of these, 9 boys never actually attended the Project at all, 5 because they moved out of town or decided to quit school during the summer before the program began, 3 because they changed their minds about being in the program and therefore requested that their school programs be changed, and 1 was excluded because of a severe visual impairment, which meant he did not meet the criteria for participation. This stringent application of the criteria occurred in the first year, but the policy was not continued in subsequent years. Of the boys who did attend the Project, even if only for a very short time, the reasons for discontinuing were as follows: 5 moved out of Newark, 3 got into trouble with the law and were sent to the State Home for Boys, 10 decided to quit both school and the Project either because they had been able to get jobs or because they reached the age at which they were legally eligible to quit and 1 boy who wanted to quit was referred instead to the regular training and evaluation program of the Occupational Center, 3 were placed on full-time on-the-job training programs through the Project, 10 were dropped by the school and Project because of excessive truancy and 4 were dropped by the Project because of very severe behavioral problems, but continued and completed the year in school.

Health Evaluations

Of the combined sample of three years, 241 students received general medical examinations. Of this group, 123 were Experimental subjects, and 128 were Control group subjects. In addition, in the Experimental group, 73 students were administered individual psychological tests, 7 were given psychiatric evaluations, 4 were given neurological examinations, 1 was given an endocrinological examination and 1 was given a speech evaluation, 1 an eye examination, and 1 was sent to an internist because he was suffering from a heart condition.

CHARACTERISTICS OF THE SAMPLE

The criteria for the sample as designated in the original Project proposal, or even as modified by the inclusion of younger students, are very general. This was true to such an extent that the population which was actually served in the program, differed in many respects from what was anticipated by the program planners, even though the criteria were essentially followed. With this in mind, more specific data about the Project participants is included below both in quantitative terms as well as qualitative observations made by the staff. A brief description of some of the major sources of information about the students is also given.

Sources of the Data

Information about the student population came from a variety of sources, which are listed and described below:

1. School Files—Data from the school files included I.Q., Reading and Arithmetic Achievement Test Scores, and Social Maturity Quotients based on ratings on the Vineland Scale. The Bureau of Child Guidance of the Newark School System forwarded to the Project, copies of the original diagnostic reports upon which the designation of a youngster as retarded and the subsequent special class placement was made.

2. Survey Interviews—As part of the screening and recruitment process, a representative of the Rehabilitation Commission conducted a preliminary Survey Interview with the boys being considered for the Project. The information from these interviews is therefore available for most of the boys in both the Experimental and Control groups. These interviews included information about the nature of the youngster's primary disability (in this case, mental retardation for all), and any secondary disabilities, and information about his work history, work plans and expectations, and the composition and economic position of the family. A standard questionnaire developed by the Rehabilitation Commission was used.

3. Intake Interviews—In the third year of the Project services, a more intensive intake procedure was added to previous practices. A more detailed interview was conducted with each of the boys in the Experimental group. Questions covered some of the same areas as the Survey Interview, but in considerably more detail. Information was also sought about the boy's understanding about his special school placement and the reasons for it, his attitude towards the different kinds of classes he had in school, his social activities and preferences, intrafamilial relationships and problems, as well as medical and social problems in the family.

4. Psychological and Psychiatric Evaluations. Some of the Experimental group subjects were administered individual psychological tests, including mostly intelligence test, but for some students including also standard personality tests such as the Rorschach, TAT, and Bender-Gestalt. These tests were given primarily in connection with service aspects of the program and service decisions, but at the same time they presented some more up-to-date information about the IQs and psychopathology of the Experimental group.

5. Social Casework Findings. In the first year of the Project services the staff included a part-time social worker. As part of her duties, she visited the homes of all the students in the Experimental group, and wrote a study and evaluation of each home.

6. Counseling of Students and Parents. Additional information was available for some of the boys in the Experimental group, related particularly to their family situations. Such information was given by students in the course of their regular counseling, or some was given by parents who attended regularly scheduled parents group meetings. This source of information was limited by the voluntary communication of the youngster, or the voluntary participation of the parents or guardians in the parents' groups and was therefore, of course, not complete. For example, a mother may have talked in the groups about having had a "nervous breakdown" when she was younger, information her son may not have had or may not have wished to reveal. Something of this sort may have been true in other families, but may not have become known to Project staff. This data, however, has been used below to supplement other sources of information.

Descriptive Data

Some of the most relevant data about the 300 educable mental retardates included in the Experimental and Control groups of the present Project is given in Table 1. In summary, the average age at which youngsters entered the program was 16.0 years with students in the 1963-64 and 1964-65 groups being somewhat older than those in the 1965-66 group; the IQ range according to past testing done at the Newark Board of Education, was 43-85 with a mean at 70.5, and with more than 50% of the students having IQs of 70 and over and almost 40% having IQs of 75 and over; the mean Social Maturity Quotient on the Vineland Scale (available for the first two years groups only) was 85.3 indicating a level of social competence higher than is usually found in retarded populations and, for many of the students, levels of social functioning equal to that of non-retarded adolescents; the mean arithmetic achievement level was 3.7 and the mean reading achievement level 2.8, with the functioning for all the groups being somewhat higher in arithmetic than in reading. In addition, 47% of the fathers and 16% of the mothers were absent from the home for the population served; 19% of the boys had been in trouble with the law; and 51% of the boys reported having had work experience before coming to the Project. It should be noted that case history data also indicated a high incidence of multiproblem families including such problems as low economic status, economic dependency, emotional illness, physical illness and accidents, and court history in family members other than the student.

For the descriptive categories listed on Table 1, there is good comparability between the Experimental and Control groups and between the 1963-64 and 1964-65 populations on the variables that were controlled in the matching process. The 1965-66 population is also comparable to the populations for the other two years, except for the difference already mentioned of the average younger age for the final group. On the uncontrolled categories of court history before entry into the Project, reported prior work history, and absence of the father from the home, there are differences within given years between the Experimental and Control groups, and differences from year to year, but in the balance for the total population, the differences between the Experimental and Control groups are not significant. Only on the uncontrolled variable of the absence of the mother from the home, are the Experimental and Control groups significantly different (for the total population, $\chi^2 = 9.22$; p .01).

A further word is in order about the IQ figures given in Table 1, and commented on above. These figures are based on examinations and reports which in some cases were not of recent date. In the course of working with boys it was sometimes necessary to get more current assessments of functioning. Of the 73 youngsters in the total three years in the Project to whom an individual IQ test was administered by the Project 28 obtained IQs of 80 or over and 4 of these had IQs of 90 or over; 36 had Performance IQs of 80 or over and 14 of these were 90 or over; 23 had Verbal IQs of 80 or over of which 2 were over 90.

Compared to the original scores submitted to the project, the Project obtained IQs of at least 20 points higher for 2 of the students, 15-19 points higher for 9 students, and 10-14 points higher for another 11 students, making a total of 22 students who achieved markedly higher IQs on this retesting. On the other hand, 3 students obtained IQs of at least 10 points lower, and 1 additional student was more than 15 points lower, making a total of 4 students with markedly lower test functioning. Two (2) of these 4 were extremely withdrawn and unrelated to the environment and were subsequently diagnosed psychiatrically as probable childhood schizophrenics. The test given to most of the boys by the Project staff was the WAIS, whereas in most cases the scores obtained from the school were based on the Stanford-Binet. The fact that the two sets of tests given were different might account for some of the differences in the results. In addition, a certain amount of fluctuation is expected by chance. But the difference between the means of the IQs reported here was highly significant ($t = 3.48$; $P < .001$). On the basis of this recent data, then, it would seem that between 1/3 to 1/2 of the youngsters so tested are inappropriately classified as mentally retarded as far as their present tested functioning is concerned. That these findings can be generalized to the rest of the Project sample has not been tested, but on the other hand there is no reason to assume that this was not a representative sample.

Also of importance to note is that the racial and ethnic background of the Experimental group was 82% Negro, 5% Puerto Rican and 13% other Whites.

Behavioral Observations

The statistical data presented above clearly indicates that the population served in this study differed from what would be expected in a group of retardates. The planners of the program expected to be serving a more limited group, as well as a group whose limitations were largely due to organity.

Some of the students in the group did fit into this category, but many did not. The result was that we had a group that was rather heterogeneous in abilities, interests, aspirations and maturity,

TABLE 1

Description of 1963-64, 1964-65 and 1965-66 Populations on Selected Variables

Variables	1963-64 Exp.	N	1963-64 Cont.	N	1964-65 Exp.	N	1964-65 Cont.	N	1965-66 Exp.	N	1965-66 Cont.	N	Combined Group Exp.	N	Combined Group Cont.	N	TOTALS	
Mean Age	16.3	50	16.3	50	16.1	50	16.1	50	15.5	50	15.5	50	16.0	150	16.0	150	16.0	300
Mean I.Q	70.6	50	70.5	50	71.9	50	70.3	50	70.3	50	69.6	50	70.9	150	70.1	150	70.5	300
Mean Social Maturity Quotient	83.1	50	84.6	50	87.9	50	85.7	50					85.5	100	85.2	100	85.3	200
Mean Arithmetic Grade Achievement	4.2	50	3.8	50	3.6	50	3.8	50	3.3	49	3.3	50	3.7	149	3.6	150	3.7	299
Mean Reading Grade Achievement	3.2	50	3.1	50	2.9	50	2.8	50	2.5	50	2.5	50	2.9	150	2.6	150	2.8	300
Work History before Project Entry	21 (44%)	48	16 (32%)	50	31 (62%)	50	20 (44%)	45	30 (60%)	50	32 (73%)	44	82 (55%)	148	67 (48%)	139	146 (57%)	287
Family Composition a) Father absent	20 (40%)	50	26 (52%)	50	19 (38%)	50	24 (48%)	50	29 (58%)	50	20 (45%)	44	68 (45%)	150	70 (49%)	144	138 (47%)	294
b) Mother absent	3 (6%)	50	9 (18%)	50	3 (6%)	50	21 (42%)	50	8 (16%)	50	2 (5%)	44	14 (9%)	150	32 (22%)	144	46 (16%)	294
Court History before Project Entry	10 (20%)	50	3 (6%)	50	6 (12%)	50	8 (17%)	48	12 (24%)	50	17 (39%)	44	28 (19%)	150	28 (20%)	142	56 (19%)	292

and that included many students who were functioning as slow learners rather than as true retardates. Their failure in learning was therefore tied in with a variety of social, emotional and behavioral problems, with the failure having resulted from these problems, or with the failure having led to or intensified maladaptive patterns. Some of the most important observations (of the Experimental subjects) are listed below:

1. Many of the students exhibited behavior problems at the beginning of their participation in the Project which could have constituted barriers to effective employment. Among these were: lateness, absenteeism, difficulty in dealing with authority figures, persistent efforts in testing the limits in a structured situation, failure to follow through on plans as for example by obtaining working papers needed for participation in some phases of the Project service, and self defeating behavior which was inconsistent with the achievement of their goals.

2. Cultural deprivation and poverty were common to the group. Therefore some of the boys, although not necessarily the majority in this case, also exhibited behaviors which may have been appropriate to the life of the streets in a ghetto, including such things as stealing from one another and from staff members, extortion of money, fighting and bullying weaker members of the group, taking someone's else's work and turning it in as one's own, etc. Aggressiveness, impulsivity, and lack of internalized control characterized this sub-group.

3. Although the ability to fight and take care of oneself was looked up to in the group, there were many youngsters who could not or would not do so. These youngsters seemed to be characterized by fear, timidity, general hopelessness and despair, and withdrawal. But an interesting thing was that even many of the more aggressive youngsters, who normally affected an air of uncaring bravado and open rebelliousness, would usually approach new situations or people with a similar kind of timidity. This was particularly noticeable in some of their initial reactions to our program—when resistence may have taken the form of not getting working papers, a much more passive approach—or in their reactions when we took them on trips. This also may have been the cause of delay for some of the boys in going for necessary examinations or in going for working papers, in that the impersonal bureaucratic structure and the need to initiate contact with strangers was seen as threatening.

4. An inadequate self-image was observable in many members of the Experimental group. This seemed to be a complex product of their educational experiences, their emotional deprivation, the attitudes of their parents, the attitudes of society towards them as members of minority groups which are generally looked down upon, the internalization of these rejecting and critical attitudes of others, and their history of failures. Many of these youngsters expected to fail not only in their school work, but in vocational endeavors, in sports or other physical activites, and in social situations. As adolescents, still between childhood and manhood, the demands of manhood in its many implications loomed very large and frightening for almost all of them, the fear enhanced by the anticipation of failure.

5. Feelings of shame were evident in many of these youngsters, not only in relation to their past failure experiences, but also in connection with their lives of poverty and general deprivation. Usually these feelings tended to be dealt with by denial, i.e. if one boy brought in a transistor radio, another might react by saying that he had ten of them at home. Some boys went so far as to make fun of the money they could make in the program, insisting they didn't need it because they could get all they wanted.

6. Many of the youngsters did not perceive themselves as retarded. In view of the data on intelligence given above this may have represented accurate self evaluations. However, many seemed to prefer to think that they were placed in special educational classes because they were behavior problems and did not listen to the teacher. For some it was undoubtedly true that disruptive behavior had been a factor. For others, believing this may have been a way of trying to save face by say-

ing "I'm not dumb, I could have done it if I tried". Related to this was a tendency to make fantastic claims to achievement—e.g. a youngster seeing one of the staff people typing, claimed that he could type 400 words per minute. Again, the defensive use of denial. This use of denial and fantasy solutions to problems ultimately had an immobilizing effect on many of the boys.

7. Related to the fact that many of the Project youngsters did not—or did not want to—perceive themselves as retarded, there were many very negative reactions to being in an agency in which the regular client population was obviously retarded. Many of the boys experienced this as degrading or demeaning.

8. Upon entering the Project program, many of the boys also expressed disappointment and anger, with many claiming that they expected to be learning a trade, or how to work on machines, etc. The source of these expectations and misconceptions was never clear. In the first two years of the program, orientation occurred on the first day the boys came to begin at the center, but in the third year they were given prior tours of the workshop, and were shown samples of the kinds of work they might be doing as well as how it was done. Yet some of the boys still claimed they had expected something else when they actually came to work. Sometimes such claims would be associated with refusal to work at all, minimal effort and/or general disruptiveness.

9. Despite the implication, from some of the observations made above that many of the stated aims, expectations, and claims of capability made by the Project boys were exaggerated, the Project staff did feel that the majority of these boys had the potential ability and the need for training on a higher level than the bench assembly work done at the Occupational Center. Many of them had sufficient intellectual and manual ability for trade training on a vocational level as long as the demands for academic skills would not be great. But in addition to academic skills, some of the behavioral problems and attitudes noted above were considered possible barriers to the successful utilization of their potential abilities.

10. Although the original criteria for the selection of the Project population stated that students with severe physical and/or psychiatric disabilities which require specialized services not available in this Project will be excluded, there were some deviations from this plan. Physical disabilities were not too much of a problem, but psychiatric difficulties were. While participating in the program, a few youngsters were diagnosed by psychological and/or psychiatric examination as suffering from schizophrenia. Since this often happened when we were already way into the program, they were not dropped from the program, largely because it was felt that it might be destructive to them to do so, and because it was felt that the program might have something to offer them. They were also retained in the analysis of the results of the study (on the rationale that similar undiagnosed psychiatric disabilities might exist in the Control groups as well).

Chapter III

THE REHABILITATION PROGRAM

In the present study, Subjects were divided into an Experimental and a Control group, each undergoing different experiences in their school and training year. These differences were as follows:

The Control group received no services from the Project but participated in the initial evaluation and screening, the final evaluation, and the follow-up. They were to receive all educational and rehabilitative services normally available to them in the community other than those offered by this Research and Demonstration Project. In essence this meant that they continued to attend special classes for the mentally retarded conducted by the Newark Board of Education at the Montgomery Street School on a five day a week basis, (the educational program is briefly described below under the "curriculum of the school", since it is the same as the school program of the Experimental group.), and that some of them in the normal course of events received services from the staff of the Rehabilitation Commission, other than Project Staff.

The Experimental group attended special classes for the mentally retarded at the Montgomery Street School for three full days per week only. During this school time they participated in the regular school curriculum for students at their age level and stage of development. The only modification made was one of compression. However, the differences in the time that students were available for the educational experience made it necessary to schedule them in separate classes. The major variable differentiating the groups in the study was not the school curriculum, per se, but the introduction of a rehabilitation experience into that curriculum on a part-time basis at the Occupational Center. Thus, on the two days per week that they were not in school, they attended, instead, the Occupational Center of Essex County, where they were involved in a program of work training and evaluation and personal adjustment training. This chapter describes the various aspects of the special program in which the Experimental group took part.

THE JOINT TRAINING ROLE OF THE PROJECT AND THE SCHOOL

When mentally retarded adolescents are scheduled for two programs on a fractional basis of 3/5 attendance at school, in a structured educational program (Montgomery), and 2/5 in a program geared to rehabilitative experiences (O. C. E. C.), the first principle which must maintain for learning to transfer is the presence of similarities in programming in both.

Hence, the principal aim of the Curriculum Guide (Appendix A) as developed for the Project was to design similar experiences and activities necessary to achieve the desired general objectives defined for both programs. The differences in the two programs were in the type of pupil direction and the orientation and scope of each program.

The Curriculum of the School

Montgomery Pre-Vocational School schedules a broad program of courses of study designed to provide adolescent mentally retarded boys with opportunities for experience in the following areas:

1. Academic: Reading and Language Arts; Arithmetic; Social Studies; Science; Speech; and Health Education.
2. Industrial Arts: Metal Shop; Wood and Plastics; Furniture Refinishing; Graphic Arts; Home Re-

pair; Power Sewing; Upholstery; Laundry and Dry Cleaning; Baking; Restaurant Service Gas Station Attendent; Auto Body Repairs; Nurses Aid; Woodwork and Building Maintenance

3. Fine Arts: Music, Instrumental and Vocal; Drawing; and Ceramics

4. Physical Education

Individual programs based on the age, capacity, and propensities of every enrollee are planned, thus allowing for patterns of study governed by the sequence appropriate for each boy. Examples of the application of this principle are contained in the ensuing paragraphs.

Enrollees are grouped on entrance into one of three sections: Exploratory, Intermediate, or Vocational. These groupings depend on certain factors: personal adjustment; academic achievement; a pupil's indicated interest in a particular shop program; and, age.

Facility of the student in reading is a particularly important basis in this system of gradations, because experience has shown that a defined minimum of achievement in this academic area is the key to school adjustment. Taking these factors into consideration, it is possible for those pupils difficult to acclimate, and who are low in general achievement and adjustment, to be scheduled for their own age group in an Exploratory group. Those pupils who indicate possibilities for immediate progress because of a history of adequate adjustment and recorded progress in academic achievement are scheduled for their age group on the Intermediate level. Pupils with good achievement academically (3, 4, 5 grade in reading) and proven adjustment are placed in the Vocational group with pupils of their own age.

These groups are flexible, since it has been found in many instances that some non-readers, well adjusted personally, have the capacity to achieve in those vocational pursuits which are defined as highly complex within the context of this school organization. As a consequence they are allowed to try out with their age groups in either the intermediate or vocational groups.

The three track school organization is operated longitudinally and horizontally. Some pupils who are placed in Exploratory Group I on entrance remain during their school life at Montgomery in this track, proceeding to Exploratory II and Exploratory III. Some who begin in Exploratory I progress to Intermediate I, II, or III and finally to Vocational Group I, II, or III depending on their facility and achievement. Again those placed in Intermediate I, because of limited progress, may remain in that track progressing longitudinally to Intermediate II and III.

The educational program for each track and level, in its core, reflects the same educational experiences either in simple or complex form. The plan for each program is organized to insure unified and integrated learning. The ultimate test of what is learned in each track and on each level is determined through the pupil's ability to translate achievement into social understandings. Thus projects completed in a cabinet shop (foot stool, wall shelf, coffee table, two-drawer chest, etc.) encompass learnings beyond the scope of vocational skills and knowledges necessary for efficient workmanship. In addition, the social use of these projects are stressed. Research in the school and pupil library to determine their utilitarian value in all types of homes is pursued. This research is supported by the employment of visual aids, use of newspapers and periodicals and planned observation trips to various points for expanding information involving all aspects of these projects from the wood as part of a tree to the completed item.

The Curriculum of the Center

The program at the Occupational Center centered around providing the students with a work oriented experience, which it was hoped would serve the following set of purposes:

1. Provide an initial orientation to a work environment, thereby helping them to learn how to make an adjustment to such an environment.

2. Help them to assess their vocational interests and aptitudes and to identify problems which may be deterrents to vocational success.

3. Develop increased vocational awareness and sophistication.

4. Provide personal adjustment training related to the following potential areas: personal hygiene, appearance, and demeanor; getting alone with others; accepting and benefiting from supervision; and, improving work tolerance to the point of being able to spend a full day in sustained job effort.

5. Improve work attitudes and work habits, including attendance and punctuality.

6. Prepare students for early entrance into industry after school graduation, by offering them a bridge between school and actual work.

The principle method used in the effort to achieve these aims was to have the students work in a sheltered workshop program in which they were assigned a variety of work tasks such as packaging, small parts assembly, mailings, salvaging, or other light bench assembly work. Although they were not integrated into the workshops of the regular Center program, their program was essentially the same as that described above. Within this setting an effort was made to simulate a regular work situation such as might be encountered in competitive industry. The boys had to go through the regular process of applying for and obtaining working papers. They had to punch a time clock when they came in to work in the morning, punch in and out when leaving the shop for lunch periods or coffee breaks, or for counseling appointments, and punch out at the end of the work day. They were paid for the work they did on a piece work basis, a procedure designed to emphasize the importance of production quantity, and to motivate them to improve their rate of work and to apply themselves to a job on a continued and steady basis. In addition they were held responsible for the quality of the work produced by the fact that if a job was not properly done, it would have to be corrected before the boy could be paid for the work.

As the program at the Center was originally planned, there were to be two phases to it: 1) In the Evaluation and Orientation Phase, intended to last for 5 months, emphasis was to be on non-remunerative activities, consisting of work samples, and guidance activities including individual and group counseling, field trips to industrial settings, and classes in occupational information. 2) In the Work Participation Phase, covering the last 5 months, sub-contract jobs with remuneration on a piecework basis were to be introduced into the shop, supplemented by a continuation of counseling activities with increasing emphasis on personal adjustment as related to work adjustment. The difference between these two phases was to be in their frames of reference, so that in phase one the goals of personal and vocational adjustment were to be pursued through an experience that stressed training to work and was therefore still largely educational in character and without the element of remuneration, whereas in phase two, the same goals were to be sought by focusing upon participation in paid work. The purpose of differentiating the two phases was to provide a gradual transition first from school into an experience that resembles the school in many respects, and then into an experience which was more closely related to industry than to school.

This planned program was implemented in the first service year. However, during that period, with the increasing awareness of the staff that the population being served was different from the one anticipated, it became apparent that the program would have to be refined. First, the Orientation Phase, in which no payment was received for work done, and in which the work sample tasks were very simple and below the capability of the boys most of whom had in fact been involved in higher level work in the school shops, failed almost entirely to motivate the boys to become involved in the work situation. It was therefore decided to condense the period of non-remunerative work so that when the boys entered the program they were informed that they could begin earning money for the work they did as soon as they obtained working papers and demonstrated that they were capable of meeting certain minimal standards of productivity. Some of the boys began to get paid in the third week that they were at the Center. Second, since many of the boys had already had outside work experiences, or were currently employed, there was an increasing emphasis on placement in jobs in the community, either as a supplement to the workshop experience, or in some cases by removing youngsters from the Project program and placing them in OJTs. In such cases, we continued to work with both the boy and his employer, especially if problems arose.

SUPPLEMENTARY SERVICES

The participation of the Experimental group students in work oriented activity at the Occupational Center, constituted the primary service provided for them in this Research and Demonstration Project. In addition, as has been mentioned above, the program plan called for providing certain supplementary services under the auspices of the Center. These services, including field trips, individual and group counseling of students, counseling with parents or guardians of the students, and placement, are described in detail below with emphasis on some of the variations in approaches that were tried. In addition, a summer program was added to the planned program covering the regular academic year. The nature of this additional program and the reasons for its inception are also discussed.

Field Trips

The program plan called for students to visit a variety of industrial settings in which, at some future date, jobs might be available to them. Accordingly, some of the places they visited were: a silk screen factory, an automobile assembly plant, and a large bakery. Generally, the entire group was included in these trips. In addition, special trips were organized for boys with specific vocational interests to visit small companies doing this particular kind of work—i.e. auto-body and fender repair, furniture re-upholstery, printing, etc. The purpose of these trips was to acquaint the boys with the nature of the work in any of these settings as well as the variety of jobs which one might hold. It was also used as a means of trying to get them to think more clearly about what each of them might want to do for the future, basing their thinking not merely on vague ideas such as,'I like cars, therefore I want to be a mechanic'. A subsidiary purpose of these trips was to have them observe the behavior of men in an organized work situation. The reactions to these trips were then used as the bases of subsequent discussions with the youngsters in groups or individually.

As the experience of the staff with the program and the population being served grew, a decision was reached to supplement these trips to industrial settings with other kinds of outings. An important factor in this decision was the behavioral observation of the timidity of the boys, their extreme uncomfortableness in new situations and reluctance to venture out into the environment beyond a rather narrowly restricted range to which they were accustomed, and the impression that they seemed not to have had or been able to make use of the opportunities and activities which might be available. Therefore, some visits to local park and recreational facilities, to the United Nations, to a movie and stage show, and a ferry ride to the Statue of Liberty were also made. The choices of these places to visit came from the group. Unfortunately, this phase of the program was introduced at a relatively late stage in our work, and really only took hold with the last year's group. Hence, it was not as integral a part of our program as might have been necessary.

Counseling Services

All the students in the Experimental group were offered both individual and group counseling, the purposes of which were two-fold: 1) to provide vocational information and guidance; and, 2) to help remove emotional impediments to competitive employment.

With regard to the individual counseling, each youngster was assigned to a member of the professional staff—rehabilitation counselors, clinical psychologist or coordinator—to be seen on a regular basis. In fact, when we became aware of the degree of personal and behavioral problems exhibited by the members of the group, the decision was made that each boy would be seen weekly and some even more often. The length and frequency of these sessions were determined on an individual basis according to a student's need, as well as his ability to make use of this kind of intensive one to one contact. The nature of the counseling sessions to some extent depended also upon the different training and background of the various staff members. Recognizing this, in the third program year, an effort was made to assign the youngsters to counselors after an assessment of their needs had been made by means of extended intake interviews. Thus, for example, an effort was made to assign the most severely disturbed youngsters to the clinical psychologist, who was in a position to offer them therapeutically oriented counseling. Actually, in view of the magnitude of the problems presented by the boys, it was felt that a majority of them could have used this kind of service. It was also felt that the ten month school year—the period of time the boys were in the program—was only enough for those services to make a beginning, but not to really take an effective hold.

It is clear from the above statement that the counseling tended to stress the second stated purpose—that of dealing with emotional problems—over the issue of vocational planning and preparation. The reason for this was a practical one. Many of the boys were just not ready or able to deal with the vocational issue in meaningful ways. They may have talked about wanting to quit school as soon as possible and get jobs, but had trouble thinking through the implications of such action, which was often conceived of in an inconsistent and impulsive manner, fluctuating with temporary mood states. Hence, it was necessary to concentrate on these moods and the factors responsible for them. Similarly, many of them were quite frightened about work and the possibility of failure, and these issues too had to be given priority. It was also felt that despite the fact that for many of the boys this would actually be their final year in school, and hence vocational planning would have been very important for them, they were too young (if not chronologically, then emotionally) for real planning to occur. Many did not have clear pictures of themselves as people, what they liked and disliked, or what they were or were not good at, and many seemed unused to expressing their own opinions. These then were some of the areas that had to be emphasized. Increasingly, in view of some of these observations, efforts were made by staff members to encourage some of the boys to return to the Montgomery Street School.

Many of these observations made with regard to the individual counseling were also found in connection with the group counseling. Here the result was that several different approaches to the groups were tried, in the hopes of finding one that might be effective. In the first year, the groups were large and were run by the leaders on a semi-didactic basis. That is, there was a schedule of vocationally related topics to be discussed at each meeting. Although participation of the group members was encouraged, they ended not to get very involved but to passively let the leaders do most of the talking. In the second year, small psychothaputically oriented groups were tried. The boys were told that they could discuss whatever they felt was important, whether related to vocational or non-vocational issues. They almost never chose to talk about vocational matters, although sometimes if they were angry at the workshop supervisor or their teachers at school, these matters were brought up and might have led to discussions of motivation and desirable behaviors in a work situation. Most of the time, however, they were more concerned about such things as girls, sexual curiosity, drinking and drug taking, getting into trouble with the law, or how to get things they wanted like nice clothes, cars etc. The trouble with these groups however, was the lack of structure or control, which led to a great deal of acting out and testing of limits, and tended in the end to be fruitful only very intermittently. In the third year, an approach somewhere between these two was tried, with large groups, which were essentially vocationally oriented, and with more emphasis on group participation. Topics were raised based on events occurring in connection with the workshop, or the group time was used to plan field trips, etc. Also, attempts were made to have different boys assume the leadership of the group and responsibility for controlling disruptive behavior. This led to discussions of their reactions to the behaviors of other group members, how other people might react to themselves, and how it felt to be a leader. This approach to the group counseling seemed to the staff, somewhat more successful than the others, but not enough so to satisfy staff members. In any case these are subjective impressions, not assessed by means of quantitative data.

Involvement of the Parents or Guardians of Students

In each of the Project service years group meetings were planned and held with the parents of the students. In the first two years these meetings were conducted by the Social Worker. In the third year, due to the lack of a social worker, the meetings were conducted by the Coordinator and the Psychologist, until the original Coordinator left our staff, at which time his role in the group was taken by one of the Rehabilitation Counselors. The groups met to discuss some of the problems faced by the parents in relation to the boys—i.e. how to deal with some of their behavioral problems, how to try to help them with their school difficulties, what kinds of vocational futures they might look forward to, what our program was trying to do for or with them, etc. Sometimes too the parents wanted to talk about more personal family difficulties.

One of the major problems with this aspect of our service however, was the fact that only a small percentage of the parents came to these meetings. This meant that many of the parents who should have needed help most never received it, either because they could not come to the meetings or because they were not interested in doing so. Some improvement with regard to this problem was made in the third year by: 1) doubling the frequency of the meetings: 2) scheduling day and evening meetings; and, 3) holding a series of orientation meetings with the parents prior to the actual start of the program. Under these conditions, about 3/4 of the parents attended at least one or two meetings, whereas in earlier years only a handful of parents had come at all. But this improvement was limited by the fact that few parents continued to come to the meetings with any regularity, and towards the end of the year very few attended at all. The change of staff personnel with regard to the group was one probable reason, and a change of location for the meetings was another. But in addition to these, it is possible that many of the parents did not feel comfortable with the group discussions, some had trouble bringing themselves to really participate, and some probably felt they were not getting the kind of help they needed. A few of the parents, however, did express the feeling that they had benefited from this experience.

In addition, some casework service was provided to parents on an individual basis. Usually this was in connection with particular problems that some of the boys presented. If parents could not come in to the Center to meet with us, arrangements were made for home visits.

Summer Program

Although it was not planned in the original Project application, a summer program was organized as an additional Project service for students who had not been placed in industry at the end of the school year, or who were considered to need continued rehabilitation services. Participation in this program was on a voluntary basis and therefore included, of those boys who had not been placed or could not find jobs on their own, only those who wanted to work and have the chance to earn some money over the summer. This number decreased from the first to the third program year, probably as a result of the increasing youthfulness of the boys in the program. The summer program served several purposes: keeping the students off the streets and in continued training; keeping them in counseling; keeping some of the boys at the Center, and hence easily available while further efforts to place them were being made; and, providing the boys some chance to earn extra money, which in most cases was badly needed. During the summer, the students attended the Center four days a week, all day, instead of the two days per week during the regular school year.

Placement

It has already been noted that because of the more advance capability of the project youngsters than had been anticipated when the Project was originally planned, an increasing emphasis was put upon the need to place the boys directly into competitive employment, sometimes instead of continued participation in our program, but more usually as a supplementary activity. Thus, some boys were placed on part-time jobs, and others were placed after the termination of the program year.

In making decisions about who was ready for competitive employment, an effort was made to adhere to two criteria: 1) that the boy's production be up to standard in terms of both quality and quantity; and, 2) that his shop behavior be appropriate for a work setting. In actual practice, though, it was often simpler to place more capable youngsters regardless of the nature of their behavior in the workshop here, because more employers were willing to hire them. It should be pointed out that some of the youngsters who were placed, despite considerable disruptive behavior with us, nonetheless did well on the outside jobs. Another fact which influenced these placement activities, was the age of the boys. First, it was true for almost all of them that because they were so young, it was difficult to arrange placements. This was even more true for the boys who were not yet 16, but who might have been ready for part-time employment. Again, therefore, we were not always able to really follow our criteria, and place the boys who had proven their interest and capability.

It should be further noted that placement in industry, was only one referral service we provided. In addition, some of the boys were encouraged to go on for further training, either in the form of On-the-Job training paid for through the cooperation of the Rehabilitation Commission, or by entering more advanced trade training programs or academic programs. Detailed statistical data on these activities is given in Appendix B.

Summarizing this data from Appendix B, the following placements were made by the Project: over the three year period, 54 students were placed in jobs with industry, of whom 50 were members of the Experimental group and 4 were members of the Control group. In addition, 13 students were placed in On-the Job training positions; 28 were referred to other programs or agencies; and, 14 were referred to vocational or other schools. Only some of these referrals led to stable employment or to completion of higher level training.

Chapter IV

THE RESEARCH ASPECT

The present Project was designed in order to demonstrate a technique of providing vocational rehabilitation services to mentally retarded youth while the youth were still in school attendance. Participation in such a vocationally oriented program was expected to result in (1) short term measurable gains in vocational effectiveness and, (2) more favorable post-project vocational adjustment in the community. Part of the Project involved conducting research into the impact of the program on the subsequent vocational development of the teen-aged boys who took part in it. The present chapter will describe the nature and findings of this research.

DESIGN AND METHODOLOGY

The primary research methods used were the testing of matched Experimental and Control groups before and after project participation, assessment of student functioning in the schools, and post-service follow-up studies assessing subsequent vocational, educational and social activities.

The Use of Experimental and Control Groups

Two groups of subjects participated in the study. The Control group, received the educational and rehabilitative services normally available to them in the community. The Experimental group had an educational experience compressed into three days per week instead of the usual five, which was supplemented by additional vocationally-oriented training in a sheltered workshop setting.

The findings relating to the Control group served essentially as a basis of comparison against which the experiences of the Experimental group could be measured, so that it could be ascertained if the youngsters who received the experimental service showed more favorable vocational development as a consequence of having received Project services. Assignment of subjects to the Experimental and Control groups was made by matching them on several relevant variables such as age, intellectual ability, socio-economic status, social and emotional maturity, school achievement and scores on a battery of tests. The matching was achieved in the following way. First sets of students were paired on the basis of their appearing to be essentially the same on most of these variables. Then the members of these pairs were randomly assigned to either the Experimental or the Control group. The two groups were then compared as groups to make sure that they did not significantly differ on any of the crucial variables. Specific data on the most important elements of this matching were given above, in Chapter II.

Pre-Project and Post Project Testing

From approximately March 1 to June 30 of each service year, all eligible students considered to be possible project clients for the next academic year received a battery of tests and evaluative instruments designed to assist the Project in making initial evaluations and matchings. The same battery was then given again one year later to measure progress in both groups.

The test battery included two well known standardized tests, the Purdue Pegboard and Porteus Maze as well as the following Project developed tests: Job Information, Money Recognition, Work sample Evaluation, Written Job Application, and Job Interview. The test battery is described in detail in Appendix C, with descriptions of the required tasks, scoring techniques, modifications in the way the tests were used which occurred during the course of the Project, and efforts to assess test reliability. A brief summary only, is given here.

1. Purdue Pegboard—This is a standarized test of manual dexterity. Speed is an important factor in successful functioning. A variety of manual tasks are performed to measure speed and dexterity with the right hand, left hand, both hands, right, left and both hands, and in an Assembly task requiring coordination of different, but simultaneous actions.

2. Porteus Mazes—This test consists of a series of printed line mazes, steeply graded in difficulty, in which a high score depends upon an ability to solve the maze problems without error. This test has been described as a measure of foresight and planning capacity, aspects of intelligence which are most important in practical social situations. Failure on maze test items is often attributed to "impulsivity."

3. Job Information—This is a twenty item, multiple choice type test of information and attitudes concerning work. This test is administered in groups with the items read to the clients to eliminate the possible effects of a client's limitations in reading ability.

4. Money Recognition—This is an individually administered test of simple and complex money identifications, ability to make coin combinations, simple and complex change making and simple accounting.

5. Work Sample Evaluations—This is a situational test of small industrial operations such as: assembling "U" bolts, assembling curlers, kick press operation, hand tool recognition, sorting nuts and bolts, visual checking of packaged items for accuracy of contents, counting and packing of poker chips and using a counting device and an Ohm Meter. Both accuracy and speed are measured, although the speed score proved to have greater value in differentiating among subjects. The items are scored individually, since they cannot be considered cumulative.

6. Written Job Application—This is a test of the ability to provide written information on an application of the type that a prospective employer might use. A representative application, obtained from just such an employer is used. The completed application is rated as an asset or barrier to probable employment in terms of each of the following traits: legibility, completeness, accuracy, comprehension, appearance and general impression.

7. Job Interview—This is a tape recorded job interview to determine client's ability to verbalize his motivation, awareness of job conditions and goals, and to assess his employability in terms of the impression he would make in such an interview situation. The tape is rated by an independent rater as an asset or barrier to probable employment in terms of the following traits: relationship with the interviewer, speech, poise and self-confidence, clarity of job goals, understanding of interviewer's questions, alertness, willingness to adapt to job conditions, grasp of facts about himself, work motivation and general interview impressions.

This pre and post-project testing was used in the research on the Project in the following ways: (1) as part of the matching process by which the Experimental and Control groups were equated and (2) as part of the assessment of changes in functioning which may have occurred over the course of the Project year and which might, therefore, be due to participation in the Project or the lack of it.

In addition to the test data, Pre-Project and Post-Project scores for the students on standardized Reading and Arithmetic Achievement Tests were also available. The testing in this case was conducted by the school, who gave the scores to the Project for evaluation. Thus, improvement in school functioning could be measured. This data was available on both the Experimental and Control groups, so that again it was possible to measure differences in the rate of change for each of these groups—differences which might, in part at least, be attributable to participation or non-participation in the Project.

The Follow-Up Process

Several follow-up studies were conducted of the students enrolled in the Experimental and Control groups. These occurred in August, 1964, May, 1965, March and April of 1966 and October, 1966. The first two follow-up studies of August, 1964 and May, 1965 covered only the students in the first Project year of 1963-64. The preliminary data from these efforts was presented in earlier reports and is included in Appendix D. The follow-up study of the Spring of 1966 covered both the 1963-64 and the 1964-65 populations, and the follow-up study of the Fall of 1966 covered the 1965-66 population. The research findings presented in the present chapter will concentrate on the findings from these final two follow-up efforts.

The procedure for obtaining the data for the follow-up study of Spring, 1966 was: (1) Students were sent letters asking them to come in to the Center to talk with us about what they had been doing since leaving the program. The percentage of students responding to these letters was relatively small. (2) The Project staff and some additional temporary employees were sent out to make visits to the student's homes to interview either the students themselves or responsible members of the family. These visits were usually made on holidays or weekends or in the evenings, when it was more likely that someone would be at home. (3) If no one was home for the first visit, a note was left for the family advising them when the interviewer would return and asking them to call the Center if this was not convenient. (4) In some cases the interview was conducted by telephone, either if the student called in response to such a note, or if no one were home for one or more visits, but it was possible to make subsequent contact by phone. This follow-up procedure was modified somewhat in the Fall of 1966 follow-up study, which had to be conducted in a very short period of time. In this case all boys who were known through data provided by the school, to have returned to school were interviewed there, with the cooperation of the administration. The other boys or members of their families were contacted by telephone, if we had a number available for them. In cases where the family had no telephone, a home visit was made.

Table 22, in Appendix E, gives data on the number of successful contacts for both the Experimental and Control groups for each of the years of Project participation, as well as the reasons contact could not be made in the other cases. Table 23, also in Appendix E, gives data on the sources of information—i.e., who was interviewed—for each of the groups.

The following is a summary of this information: Follow-up data was gathered for 224 members of the total sample, including 125 Experimental and 99 Control subjects. The total number of contacts for the 1963-64 group was 70, for the 1964-65 group 68 and for the 1965-66 group 96. We were significantly more successful in contacting members of the Experimental group ($\chi^2 = 13.59$, $p < .001$). The sources of the data include: 161 students, 47 parents or guardians, and, in the remaining 16 cases, other relatives, friends, or the school. Failure to contact the remaining students was attributable to the fact that their current addresses were unknown in 55 cases, the student could not be reached at the present address in 9 cases, the student was institutionalized in 5 cases, the informant was uncooperative or gave insufficient information in 3 cases and in 2 cases the students were deceased.

The interviews conducted in these follow-up studies were in accordance with a structured questionnaire (see Appendix F). The information sought dealt primarily with the vocational and educational activities of the students, especially those which they had been involved in since the end of the Project year. For boys who had left school or the Project at an earlier time, data was collected on their activities since that termination date. With regard to work, an effort was made to find out for each job, what the duties were, how much salary was earned, how long the job lasted, what the reasons for termination were, how the job had been acquired, etc. With regard to continued schooling, questions related to whether the youngster had returned to the Montgomery Street School, whether he graduated, why he left if he did, if he was going to any other school, and if so, what was the nature of the program, etc. Information was also obtained about any trouble the youngster might have had with the law.

In addition to these follow-up study efforts, some follow-up data was also obtained from the case files of the Rehabilitation Commission.

RESULTS OF THE RESEARCH

The primary purpose of the research conducted in connection with this Project was to assess the effectiveness of the Project rehabilitation program in improving the vocational functioning or the vocationally related functioning of the mentally retarded students. In connection with this purpose, the following two hypotheses were tested:

1. Participation in a vocationally oriented cooperative program in which classroom experiences are combined with community workshop experiences will eventuate in short-term measurable gains in vocational effectiveness among mentally retarded teenagers. These gains, occurring over a period of one year will be manifested in the following areas:
    a. Job knowledge as evaluated in terms of testing with the Job Information Test.
    b. Job find behavior, as assessed through the Job Application Test and evaluations of role playing behavior in simulated job interviews.
    c. Work performance, as evaluated in terms of functioning on a series of work sample tasks, the Purdue Pegboard Test and the Porteus Mazes.
    d. Academic Achievement, as measured by standardized achievement tests used by the Newark Board of Education.
2. Participation in a vocationally-oriented cooperative program in which classroom experiences are combined with community workshop experiences will eventuate in more favorable post-project vocational adjustment in the community among mentally retarded teenagers. The differences in vocational adjustment will be manifested in:
    a. Employment status
    b. Work stability
    c. Continued educational or training involvement, related to career planning.

In addition to these two major hypotheses, some additional questions which were examined in the course of the research were:

1. Can sub-groups of the students be identified who made the greatest vocational progress as a result of participation in the experimental program, or can differences in the kind of progress made be related to these sub-groups, based on characteristics such as intellectual ability, maturity, or reported prior work history?
2. Did the experimental and control groups differ in their tendency to complete the year of Project participation in school?
3. Did the experimental and control group students differ in post-Project community adjustment in terms of their tendency to get into trouble with the law?
4. Can we identify characteristics of the students, regardless of participation or non-participation in the experimental program which are related to vocational success?

Improvement in Potential Vocational Effectiveness as Measured by Test Functioning

Hypothesis I states that participation in the experimental school-workshop rehabilitation program by mentally retarded adolescents will result in measurable gains in job knowledge, job find behavior, work performance and academic achievement. More specifically, it was expected that when the post-project scores on the test battery were compared to the pre-project testing for both the Experimental and Control groups, that the Experimental group would show a greater amount of improvement.

This hypothesis was tested by comparing the frequency with which members of the Experimental and Control groups had improved scores on retest at the end of the Project year (as compared to scores which were the same, or in many cases even poorer). Differences in the frequency of improved scores were compared by means of chi-square (χ^2) to assess their significance.

The data in Table 2 show that for the 1963-64 and the 1964-65 populations there were no significant differences between the Experimental and Control groups in the frequency with which students showed improved functioning on items of the test battery. For the 1965-66 population, significantly more of the students in the Control group showed improvement in arithmetic achievement and significantly more of the Experimental group students showed improvement on the assembly sub-test of the Purdue Pegboard Test of manual dexterity. When the three student populations are combined, the only significant difference which holds for the total population is the one which shows the Experimental group to have improved more often on the Purdue Assembly. Since there was no differences at all on this variable for the 1963-64 and 1964-65 populations, the finding for the total group is almost completely a function of the magnitude of the findings for the 1965-66 population.

In general, Hypothesis 1 is not supported.

Post-Project Vocational and Educational Activities

Hypothesis 2 states that participation in the experimental school-workshop rehabilitation program by mentally retarded adolescents will result in more favorable post-project vocational adjustment. Specifically, it was expected that more of the Experimental group students would be working or engaged in vocationally related training programs, and that they would show greater stability in these activities.

A summary of the educational and vocational activities of the Project populations at the time of the follow-up studies is given in Appendix G, Table 24, and a summary of all educational and vocational activities engaged in since the termination of Project participation is given in Appendix G, Table 25.

The data from the follow-up studies were evaluated in terms of a series of "success" criteria defined as follows:

1. Current full time employment vs. no current full time employment.

2. Current employment, either full or part-time vs. no current employment.

3. Full time employment at any time since termination of Project participation vs. no full time employment at any time in that period.

4. Full or part time employment at any time since termination of Project participation vs. no employment at any time in that period.

5. Any training or schooling since the termination of Project participation vs. no additional training or schooling in that period.

6. Currently attending Montgomery Street School or graduated from that school vs. no longer attending Montgomery, but quit rather than graduated.

7. In some kind of advanced education or training program currently or completed some such advanced training vs. not involved with advanced training, or did not complete such training, but quit.

TABLE 2

Comparison of Experimental and Control Groups on the Frequency of Improved Retest Scores in Academic Achievement and on Selected Variables of the Test Battery

Variable	1963-64 Population							1964-65 Population						
	Exp.			Cont.				Exp.			Cont.			
	N	n	(%)	N	n	(%)	χ^2	N	n	(%)	N	n	(%)	χ^2
Reading Achievement	33	23	(70%)	32	18	(55%)	1.26	31	21	(68%)	24	14	(58%)	< 1
Arithmetic Achievement	32	14	(44%)	32	18	(55%)	1.00	31	16	(52%)	24	9	(38%)	< 1
Job Information	36	27	(74%)	33	19	(58%)	1.63	28	14	(50%)	19	9	(47%)	< 1
Purdue Assembly	36	22	(61%)	30	19	(63%)	< 1	21	8	(38%)	22	7	(32%)	< 1
Work Samples														
1. Small Curler Assembly	34	15	(44%)	30	14	(48%)	< 1	22	15	(68%)	22	10	(46%)	1.48
2. Kick press	36	14	(39%)	32	14	(44%)	< 1	22	5	(23%)	22	10	(46%)	1.61
3. Sorting Nuts	35	13	(37%)	35	14	(40%)	< 1	22	4	(18%)	7	4	(23%)	< 1
Job Application	35	1	(3%)	32	1	(3%)	< 1	28	12	(43%)	18	10	(56%)	< 1
Job Interview	16	3	(18%)	33	16	(49%)	2.86	27	8	(30%)	5	1	(20%)	< 1
Money Recognition[1]	—			—			—	19	14	(74%)	18	14	(78%)	< 1

TABLE 2 (cont'd)

Comparison of Improvement on Retest Scores

Variables	1965-66 Population							Combined Populations						
	Exp.			Cont.				Exp.			Cont.			
	N	n	(%)	N	n	(%)	χ^2	N	n	(%)	N	n	(%)	χ^2
Reading Achievement	40	13	(33%)	37	17	(46%)	1.46	104	57	(55%)	93	49	(53%)	< 1
Arithmetic Achievement	40	12	(30%)	38	21	(55%)	5.10*	103	42	(41%)	94	48	(51%)	2.09
Job Information	29	17	(59%)	21	16	(76%)	< 1	93	58	(62%)	73	44	(60%)	< 1
Purdue Assembly	36	25	(69%)	31	9	(29%)	9.33**	93	55	(59%)	83	35	(42%)	5.06*
Work Samples														
1. Small Curler Assembly	36	13	(36%)	32	17	(53%)	1.99	92	43	(47%)	84	41	(49%)	< 1
2. Kick press	35	17	(49%)	30	11	(37%)	< 1	93	36	(39%)	84	35	(42%)	< 1
3. Sorting Nuts	36	22	(61%)	31	16	(52%)	< 1	93	39	(42%)	83	34	(41%)	< 1
Job Application	31	5	(16%)	25	0	(0%)	2.67	94	18	(19%)	75	11	(15%)	< 1
Job Interview	34	2	(6%)	27	1	(37%)	< 1	77	13	(17%)	65	18	(28%)	2.41
Money Recognition	34	19	(56%)	28	17	(61%)	< 1	53	33	(62%)	46	31	(67%)	< 1

Note: N = number of subjects retested; n = number with improved scores.

[1] The money recognition test was altered during the first year in terms of both administration and scoring. Hence retest scores for the 1963-64 population were not comparable to their original scores.

*Significant, $p < .05$

**Significant, $p < .01$

8. Current involvement in productive activity, including either work or training, vs. not working or not in school or training.

9. Involvement in productive activity at any time since termination of project participation vs. no work, schooling or training involvement at any time in that period.

10. Held any one job at least six months or more, vs. no work history or jobs of shorter duration only.

Hypothesis 2 was tested by comparing the frequency with which members of the Experimental and Control groups were rated as "success" on each of these criteria. Chi-square (χ^2) tests of the significance of the different frequencies were used.

The data in Table 3 show that on the various employment criteria, in almost every set of comparisons, the percentage of youngsters reported as employed is greater for the Experimental than the Control groups. Most of these differences, however, while in the direction predicted by the hypothesis, are not significant. There is one important exception. The number of Experimental students reported as employed full-time at the time of the follow-up studies is significantly greater than for the comparable groups of Control subjects for the 1964-65 population, and then again for the combined population of all three years. In trying to understand these findings, it should be kept in mind that the reported work history prior to entry into the Project was significantly greater for the Experimentals than the Controls for the 1964-65 population, ($\chi^2 = 5.99$; $.01 < p < .02$), but not for the 1963-64 population, the 1965-66 population, nor for the combined population. The follow-up study findings for the 1964-65 population indicated that more of the Experimentals than Controls are working. This may be a function of this reported work history prior to entry into the Project, rather than a result of Project participation. On the other hand, this cannot really be said about the finding with regard to the combined population since as a group they did not differ significantly before the Project on work history. Here the result would seem to reflect the accumulation of the differences, which were noted for each of the year groups, although they were not always significant, but which when put together, reached a sufficiently large magnitude to achieve significance.

With regard to continued training or schooling, data in Table 3 shows that there were no differences between the Experimental and Control groups in the frequency with which they sought some such training, even if just for a short period of time. The Control group more often tended to remain at The Montgomery Street School, but these results were not significant. On the other hand, the Experimental group more often tended to seek advanced training beyond that offered by Montgomery—in such things as the trade training programs in the local Adult Technical School programs, or the Job Corps, or On-the-job-training programs, etc., and although these differences are not significant for any of the particular yearly samples, the accumulated difference for the total population of the three years is significant.

The data in Table 3, also show that there are no differences between the Experimental and Control groups on the Productive Activity criterion (percentage of students who were "just doing nothing"), nor on the job stability criterion (having held any single job for at least six months).

Summarizing these findings, then, Hypothesis 2 is only partially supported.

Student Characteristics Related to Benefits Derived From the Program

The research results presented so far reflect some positive benefits derived by the students from participation in the experimental program, but show also that these benefits are quite limited in nature. These findings seemed to fit in with the subjective impression of the Project staff that the sample actually served by the program differed in some serious ways from the population that was anticipated by the original program planners. Many of the students served were more intelligent and more socially sophisticated than is usually true of the mentally retarded, many had reported a history of work experience before they came into the Project, and quite a few were younger than the original age criterion and hence may not have been ready for vocational preparation. The

TABLE 3

Comparison of Experimental and Control Groups on Selected Criteria of "Success", based on Follow-Up Study Data, and Related to Post-Project Educational and Vocational Activities

Success Criteria	1963-64 Population					1964-65 Population				
	Exp. (N = 37)		Cont. (N = 33)			Exp. (N = 45)		Cont. (N = 25)		
	n	(%)	n	(%)	χ^2	n	(%)	n	(%)	χ^2
Employment										
Current, Full Time	27	(73%)	20	(61%)	< 1	14	(31%)	1	(4%)	5.50*
Current, Full or Part Time	31	(84%)	21	(64%)	2.73	22	(49%)	8	(32%)	1.25
Anytime since Project, Full Time	35	(95%)	27	(82%)	1.69	22	(49%)	8	(32%)	1.25
Anytime, Full or Part Time	37	(100%)	30	(90%)	1.65	35	(78%)	16	(64%)	< 1
Schooling or Training										
Any since Project	22	(60%)	17	(52%)	< 1	24	(53%)	19	(76%)	2.59
At or graduated Montgomery	5	(14%)	8	(24%)	< 1	15	(33%)	13	(52%)	2.33
In, or completed advanced training	11	(30%)	4	(12%)	2.25	6	(13%)	3	(12%)	< 1
Production Activity (work and/or training)										
Current	32	(87%)	25	(76%)	< 1	35	(78%)	19	(76%)	< 1
Anytime since Project	37	(100%)	31	(94%)	< 1	41	(91%)	25	(100%)	< 1
Held Any One Job Six Months or More	22	(60%)	14	(42%)	2.03	11	(24%)	8	(32%)	< 1

TABLE 3 (continued)

Comparison of Post-Project Activities

Success Criteria	1965-66 Population					Combined Populations				
	Exp. (N = 45)		Cont. (N = 41)			Exp. (N = 127)[1]		Cont. (N = 99)[1]		
	N	(%)	N	(%)	χ^2	N	(%)	N	(%)	χ^2
Employment										
Current, Full time	12	(27%)	7	(17%)	< 1	53	(42%)	28	(28%)	4.38*
Current, Full or Part Time	20	(44%)	14	(34%)	< 1	73	(58%)	43	(43%)	< 1
Any time since Project, Full time	17	(38%)	12	(29%)	< 1	74	(58%)	47	(48%)	2.61
Any time, Full or Part Time	22	(49%)	21	(51%)		94	(78%)	67	(68%)	1.09
Schooling or Training										
Any time, since Project	29	(64%)	25	(60%)	< 1	75	(59%)	61	(62%)	< 1
At, or graduated Montgomery	21	(47%)	24	(59%)	< 1	41	(32%)	45	(46%)	3.43
In, or completed advanced training	5	(11%)	0	(0%)	3.02	22	(20%)	7	(7%)	4.35*
Production Activity										
Current	39	(87%)	33	(81%)	< 1	106	(84%)	77	(78%)	1.17
Any time since Project	42	(93%)	36	(88%)	< 1	120	(99%)	92	(93%)	< 1
Held Any One Job Six Months or More[1]	—		—			30	(37%)[1]	20	(35%)[1]	< 1

Note: N = number of cases included in the follow-up study; n = the number of cases listed as "successful" according to the defined criterion.

[1] The criterion "Held any one job 6 months or more" was not applicable to the 1965-66 population who were seen in follow up less than 6 months after the end of their project year. Therefore, the Combined Population Ns are different on this variable—i.e. Exp. N = 82; Cont. N = 58.

*Significant, $p<.05$.

staff felt that the low skill and interest level of the work available in the workshop made it an inappropriate situation for some of the more capable youngsters.

The question arose as to whether we could verify the expectation that certain sub-groups of the population might have benefited from taking part in the program whereas others may not. It was therefore decided to divide the group into sub-groups based on the characteristics of age maturity, intelligence and prior work history as follows: 1) Under 16 years old on entering Project vs. 16 years old and older; 2) IQ under 75 vs. IQ 75 or over (based on school records); 3) No reported work experience vs. reported work experience; and, 4) Social Maturity Quotient under 85 vs. Social Maturity Quotient of 85 and over. The Experimental and Control groups of each of these sample sub-groups were then compared on the follow-up study success criteria. This meant that we were comparing smaller, more homogeneous groups, who might be expected to be doing similar things. The homogenity of the groups might help to clarify existing differences.

The results are presented in Tables 4, 5, 6, and 7. For the sub-groups based on age, there are no differences as a result of participation or non-participation in the Project program, although the younger students and older students seemed to be functioning quite differently from each other. For the sub-groups bases on IQ the following differences were found: Among the students with IQs under 75, the Experimental subjects differed significantly from the Control subjects in being more often employed on either full or part time basis. Among the students with IQs over 75, the Control group students significantly more often than the Experimentals tended to return to the Montgomery Street School, whereas the Experimental group students significantly more often went on to some other, usually more advanced, training. For the sub-groups based on Social Maturity, there were no differences between the Experimental and Control groups of the less mature students, but in the higher maturity group significantly more of the Experimentals were employed full time. There were no differences between the Experimental and Control groups for the sub-groups based on previous work experience.

A further analysis of the data was made to ascertain whether the characteristics of age, IQ, previous work history and Social Maturity were in themselves related to successful vocational and educational activities, regardless of Project participation. For these analyses, Experimental and Control groups were combined, and comparsons were made in terms of the various sub-groups. The data are presented in Appendix H, Tables 26, 27 and 28. It is clear that the most important factor contributing to post-project success is age. Thus, the older students were significantly more successful on all the criteria related to employment than were the younger students; the older students significantly more often went on to, and completed, more advanced training whereas, the younger students significantly more often returned to Montgomery. To some extent these findings could be expected on a purely rational basis—i.e. older boys can legally leave school and they are more able to find jobs since more employers will hire them, while many of the younger boys may have been too young to leave school legally, and therefore, had to go back to Montgomery. What is important, however, in these findings is that age was a more powerful determinant of vocational outcome for the boys than was Project participation.

Completion of the Project Year

It has already been indicated that one of the major difficulties in trying to work with this population in terms of educational or vocational preparation is the high drop-out rate. This was noted in the course of this Project as well. Of the total sample of 300 students, 101 (34%) withdrew from the school during the course of the Project years. Of these, 41 were Experimental and 60 were Control students. The difference in the drop-out rate for the two groups is significant ($\chi^2 = 5.39$, $p < .05$). However, actually 45 students did not complete the Project program, since 4 students withdrew or were dropped from the Project but completed the year at school. If we count these additional 4 students as drop-outs from the Project, the difference between the drop-out rates of 45 and 60 for the Experimental and Control groups, respectively, is no longer significant ($\chi^2 = 3.30$; $p > .05$).

TABLE 4

Comparison of Experimental and Control Groups on Selected Criteria of Success in Post-Project Educational and Vocational Activities for Sub-groups based on Age

Success Criteria	Under 16 on Project Entry					16 or Over on Project Entry				
	Exp. (N = 54)		Cont. (N = 56)			Exp. (N = 73)		Cont. (N = 43)		
	n	(%)	n	(%)	χ^2	n	(%)	n	(%)	χ^2
Employment										
Current, Full Time	18	(33%)	11	(20%)	2.65	35	(48%)	17	(40%)	< 1
Current, Full or Part Time	26	(48%)	21	(38%)	1.27	47	(64%)	22	(51%)	1.96
Anytime since Project, Full Time	22	(41%)	18	(32%)	< 1	52	(71%)	29	(67%)	< 1
Anytime, Full or Part Time	32	(59%)	32	(57%)	< 1	62	(85%)	35	(81%)	< 1
Schooling or Training										
Any since Project	35	(65%)	38	(68%)	< 1	40	(55%)	23	(54%)	< 1
At or graduated Montgomery	23	(43%)	31	(55%)	1.79	18	(25%)	14	(33%)	< 1
In, or completed advanced training	6	(11%)	2	(4%)	1.33	16	(22%)	5	(12%)	1.30
Productive Activity (Work and/or Training)										
Current	46	(85%)	42	(75%)	1.20	60	(82%)	35	(81%)	< 1
Anytime since Project	50	(93%)	50	(89%)	< 1	70	(96%)	42	(98%)	< 1

TABLE 5

Comparison of Experimental and Control Groups on Selected Criteria of Success in Post Project Educational and Vocational Activities for Sub-groups based on I. Q.[1]

Success Criteria	IQ Under 75					IQ of 75 or Over				
	Exp. (N=79)		Cont. (N=63)			Exp. (N=48)		Cont. (N=36)		
	n	(%)	n	(%)	χ^2	n	(%)	n	(%)	χ^2
Employment										
Current, Full Time	33	(42%)	17	(27%)	3.36	20	(42%)	11	(31%)	1.09
Current, Full or Part Time	45	(57%)	25	(40%)	4.19*	28	(58%)	18	(50%)	<1
Anytime Since Project, Full Time	46	(58%)	30	(48%)	1.59	28	(58%)	17	(47%)	1.02
Anytime, Full or Part time	56	(71%)	41	(65%)	<1	38	(79%)	26	(72%)	<1
Schooling or Training										
Any Since Project	43	(54%)	40	(64%)	1.19	32	(67%)	21	(58%)	<1
At or graduated Montgomery	27	(34%)	26	(41%)	<1	14	(29%)	19	(53%)	4.81*
In or completed advanced training	8	(10%)	5	(8%)	<1	14	(29%)	2	(6%)	5.66*
Productive Activity (work and/or training)	66	(84%)	48	(75%)	1.20	40	(83%)	29	(81%)	<1
Current	66	(84%)	48	(75%)	1.20	40	(83%)	29	(81%)	<1
Anytime since Project	75	(95%)	59	(94%)	<1	45	(94%)	33	(92%)	<1

[1] The IQ values are based on school records

*Significant, $p < .05$

TABLE 6

Comparison of Experimental and Control Groups on Selected Criteria of Success in Post-Project Educational and Vocational Activities for Sub-groups Based on Level of Social Maturity[1]

Success Criteria	Social Maturity Quotient Under 85					Social Maturity Quotient 85 and Over				
	Exp. (N = 41)		Cont. (N = 29)			Exp. (N = 41)		Cont. (N = 27)		
	n	(%)	n	(%)	χ^2	n	(%)	n	(%)	χ^2
Employment										
Current, Full Time	23	(55%)	12	(41%)	1.47	24	(59%)	8	(29%)	4.36*
Current, Full Time or Part Time	26	(63%)	14	(48%)	1.59	27	(66%)	14	(52%)	1.33
Anytime since Project, Full Time	32	(78%)	18	(62%)	1.41	25	(61%)	15	(56%)	< 1
Anytime, Full or Part Time	37	(90%)	22	(76%)	1.68	35	(85%)	22	(82%)	< 1
School or Training										
Any Since Project	19	(46%)	17	(59%)	1.03	27	(66%)	18	(67%)	< 1
At or Graduated Montgomery	8	(20%)	9	(31%)	< 1	12	(29%)	12	(44%)	1.64
In, or Completed Advanced Training	6	(15%)	5	(17%)	< 1	11	(27%)	2	(7%)	2.82
Productive Activity (work and/or Training)										
Current	31	(76%)	23	(79%)	< 1	36	(88%)	20	(74%)	1.27
Anytime since Project	39	(95%)	29	(100%)	< 1	39	(95%)	25	(93%)	< 1

[1] This table includes data for the 1963-64 and 1964-65 groups only since Social Maturity Quotients were not available for the remaining group of subjects.

*Significant, $p < .05$

TABLE 7

Comparison of Experimental and Control Groups on Selected Criteria of Success in Post Project Educational and Vocational Activities for Sub-groups based on Work History Prior to Project Entry

Success Criteria	No Reported Work Experience					Reported Prior Work Experience				
	Exp. (N = 58)		Cont. (N = 44)			Exp. (N = 69)		Cont. (N = 48)		
	n	(%)	n	(%)	χ^2	n	(%)	n	(%)	χ^2
Employment										
Current, Full Time	22	(38%)	13	(30%)	< 1	31	(45%)	14	(29%)	2.97
Current, Full or Part Time	21	(53%)	17	(39%)	2.20	42	(61%)	22	(46%)	2.58
Anytime since Project, Full-Time	32	(55%)	23	(52%)	< 1	42	(61%)	23	(48%)	1.92
Anytime, Full or Part Time	40	(69%)	20	(68%)	< 1	54	(78%)	33	(69%)	1.34
Schooling or Training										
Any since Project	38	(66%)	21	(48%)	3.25	27	(39%)	21	(44%)	< 1
At or graduated Montgomery	23	(40%)	20	(46%)	< 1	18	(26%)	20	(42%)	3.13
In, or Complete Advanced Training	10	(17%)	4	(9%)	< 1	12	(17%)	3	(6%)	2.23
Productive Activity (Work and/or Training)										
Current	50	(86%)	33	(75%)	< 1	56	(81%)	37	(77%)	< 1
Anytime since Project	54	(93%)	42	(96%)	< 1	66	(96%)	43	(90%)	< 1

Involvement With the Law After Project Entry

Another possible measure of the impact of participation in the Project on the population served can be obtained from self-reports and other reports of legal offenses recorded subsequent to Project service. The relevant data are presented in Table 8. The controls are reported to have engaged in significantly greater numbers of instances of illegal behavior than the Experimentals.

TABLE 8

Comparison of Experimental and Control Groups on Involvement with the Law Since Entry into the Project

Group	Reported Involvement with the Law						
	Experimental			Control			
	N	n	(%)	N		(%)	χ^2
1963-64	37	6	(16%)	35	9	(26%)	< 1
1964-65	45	5	(11%)	26	8	(31%)	3.05
1965-66	45	4	(9%)	41	7	(17%)	< 1
Total 1963-66	127	15	(12%)	102	24	(24%)	5.50*

Note: N = Number of cases for whom data is available.
n = Number of cases that were involved with the law since entry to the Project.
*Significant; $p<.01$

CASE HISTORIES

A clearer picture of the ways in which subjects who took part in the experimental program may have been influenced by the experimental service may be obtained by reference to case data. This is particularly relevant in the present study because some of the definitions and measures of success may not have been sufficiently sensitive to identify some of the changes that occurred in certain of the boys. It is further helpful to study selected individual cases which may contribute to an understanding of some of the reasons why success may or may not have been achieved with certain individuals, the variety of ways in which success may have been manifested (some of which could not readily be measured), the difficulty of determining when success really is attributable to the Project, and the magnitude of the problems presented by some of the youngsters or their family situations which mitigated against beneficial results which might have resulted from the Project.

The following brief case histories are presented mostly to point up the complexity of these issues:

1. P. G. (E116) had a friendly, outgoing manner, combined with a certain social poise and politeness which helped him to make a good impression on others. In the workshop he made a very good impression initially, both in personal terms and then in the satisfaction of the supervisor with his work. However, he was unable to maintain the early level of performance, and his functioning generally tended to fluctuate. Tardiness increased. At the same time, the staff quite impressed by his early functioning and perhaps laboring unduly under a kind of "halo effect" tended to encourage him to enter into more advanced training programs. Therefore, when he finished his year in the Project, he went into Youth Career Development Center's training program for auto body and fender repair work. He did not last in this program, so instead OJTs were arranged for him in this same

field on the assumption that he might be more successful if he did not have to bother about the academic aspect of the training. He completed two such OJTs, each of three months duration, but at the end of each period, he was not employed by the company because his work was not considered sufficiently satisfactory. A third OJT was not completed. He then went on to several other jobs of short duration. At present he is involved in another youth training program under the auspices of OEO (Office of Equal Opportunity).

On the success criteria used in the present study this student would mostly be classified as a "success" in that he was working at the time of the follow-up study, had completed some kind of advanced training, and has not been in trouble with the law. The only criteria on which this was not true was retesting on the test battery, where he did much more poorly than he had previously. Despite the appearance of success, it is clear that this youngster has not been effectively rehabilitated. Perhaps one of the reasons for failure in this case is that he tended to set his goals too high, and would then get discouraged because he was unable to come through. Such a problem was complicated by the "halo effect" reaction of others who also came to expect too much of him. The result was a withdrawal from resulting difficult situations, whether overt or covert.

2. C. E. (E 160)—This student was considerably higher in level of capability, intelligence and social maturity and sophistication than most of the other boys in his group. He began cooperatively, but then quickly became bored with the work in the shop, and when an attempt was made to deal with this in the counseling and to draw his attention to the fact that his behavior made it difficult for us to recommend him for higher level training, he shrugged this off saying that he had so often been promised by teachers and other persons in authority that if he was "good" he would be moved into one of the high school trade training programs, but then they never followed through with the promises, so he did not think it paid.

Ultimately, we did refer him to the Essex County Adult Technical Program, making this decison on the basis of: 1) the awareness that he really had the potential ability, and 2) his work history as a part-time shoe salesman, a job he had held for 1 1/2 years with the satisfaction of his employer. He successfully completed one year of the auto body and fender training program and is currently working in this field. In this case, then, it would seem pretty clear that our main contribution to this youngster was not in the program itself, but in our ability to help him make the necessary contacts so that he had the chance to further his education. He wanted to do this, but might not have taken the step on his own.

3. A. H. (E 165) was a very frightened, confused and disturbed youngster. He gave the impression of living in a very private world, and only very infrequently coming out for contact with others. In keeping with this, his attendance in school and at the Project was sporadic. During the course of the Project year, the problems were exacerbated by the fact that his brother, who was a year or two older than him, commited suicide by slashing his throat, and that A. was the one who found the body. The Project staff made continuous efforts to maintain contact with him when he did not come himself to the program, but often he could not respond to this reaching out. Ultimately he withdrew from the program altogether. Every once in a while after that, he would seek help from members of the Project staff, or later from the counselor at the Rehabilitation Commission, but after one contact he would never follow through. An effort was made to get him to recognize and accept the need for some kind of therapy. He wanted treatment but was terribly afraid that if he went for a psychiatric examination, the doctor would hospitalize him as "crazy." He may have in fact been right about this. Unfortunately, he never had the examination, and never went for the help he needed. Gradually our efforts to work with him had to be given up. When last seen in connection with the follow-up study his life still seemed to be disorganized. He was not working or going to school and there was nothing of any stability for him to hold on to. The likelihood is that this youngster will require hospitalization.

4. R. S. (E 167) was a quiet, steady, well-mannered and pleasant youngster. He was slow moving, slow thinking, and his speech was somewhat slow and thick, all of which tended to give an impression of dullness. But on the other hand, when he did say what was on his mind, one had to take

notice of a quality of real perceptiveness and intelligence. He seemed to have more of a sense of inner strength and ego intactness than most of the other boys. The others seemed to recognize this, so that even though he was not part of the in-group and one of the leaders, he was treated respectfully by them—i.e. they knew he could "take care of himself" and therefore, he was never bullied, picked on or teased (a treatment otherwise given only to the bullies themselves). Vocationally, R. was interested in learning to be a short-order cook. His mother had saved her money from other jobs to buy a luncheonette, which the two of them had been running for about a year when R. entered our program. On weekends and evenings he virtually took care of the business himself while his mother attended to other duties at home. She expressed considerable pride in the responsibility he had shown. To improve his functioning in this work, he requested further training. We helped him to get into a regular Vocational High School Food Trades training program. At the time of the follow-up study he was in the 10th grade in this school, having already completed one year of the program. He was very satisfied with what he was doing, including both the schooling and working part-time in the luncheonette. The Project was helpful to this youngster, not in terms of the work or training he received here so much as in our having the chance to recognize his capabilities, and then in our being able to place him in the training program he needed.

5. K. S. (E 182) was a quiet, passive and somewhat withdrawn youngster when he first entered the Project. He had a long history of getting into trouble with the law, and had in fact spent a year or two in reform school. Despite his apparent timidity with us, he was recognized by the other boys as someone to be somewhat afraid of, and therefore not to be antagonized. In the early phases of the program, he demonstrated many of the self defeating behaviors noted as characteristic of the group: he took several months to get his working papers, and finally did so only under extreme pressure; he truanted frequently; and, he was late a good deal. However, he responded very well to the kind of special treatment and interest available to him in the program, so that gradually his functioning showed considerable improvement. He became much more communicative with both the adults and his peers, his production in the shop improved although he was never a really fast worker, and he showed increasing motivation to get and hold a job. He also began to spend some of his free time around the shop to be with and help the shop supervisor, whom he seemed to admire. After leaving the program he got a job, working for a painting company. Although it was unskilled work they were paying him $1.75 an hour.

6. L. S. (E 202) was one of the brightest boys in the program, with an IQ of 85. He had been placed in Special Education because of limited academic progress and an unresponsiveness to the classroom situation. When he first came into the Project, he impressed the workshop supervisor by the rapidity with which he learned the tasks, and the high quality and quantity of his production. However, his excellent performance lasted for only about a week. After that a pattern of immature and self defeating behavior took over. He took more than three months to get his working papers, he was absent very often, usually in response to sudden mood shifts; he was always late, sometimes by an hour or more; and, his behavior when he was in the shop was generally disruptive in a childlike way, showing a craving for attention. His main problem, then, was his behavioral inconsistency, and an inability to follow through and get for himself some of the things he said he wanted. For example, he was very much interested in art, and showed considerable real talent in this direction. He became very excited when special tutoring in this area was offered to him by one of our staff members, but then never returned to take advantage of the offer. Similar incidents had occurred with special classes offered at the local library or school. With regard to these areas of difficulty, only very limited progress was noted over the course of the year—i.e. there would be momentary spurts, during which attendance, punctuality and behavior in the shop would improve, but then he would slide back again. Some improvement was also noted in terms of reported activities outside of the shop, so that whereas in the beginning he mostly seemed to stay home by himself either drawing or day dreaming, he began to make new friends during the time he was with us, he learned to play the guitar and became part of a Rock-n-Roll group, and his interest in the drawing took a somewhat more serious turn in that he got a book from which he was studying draw-

ing techniques, the musculature of different parts of the body, and how to draw different positions and views. In the vocational sphere, however, there was almost no progress.

Before entering the Project, he reported having a job in a barber shop, washing peoples hair. He had this job during most of the year, and also reported that he was still working there when he went to speak to the counselor at the Rehabilitation Commission who thought there might be a need for further placement or counseling activity. The trouble with this job is that it is not regular—he goes in only when he feels like it, and even then his earnings are not regular since he gets paid on a piece-work basis and if there are no customers for a long period of time, he will earn nothing for that time. Thus, although his case was closed as rehabilitated, because of this reported employment, he can in no sense really be considered as rehabilitated. In addition to the reasons given above, there is the fact that he is obviously not making use of his potential abilities. Perhaps, given the nature of some of his problems, this was the most we could do for him at this time. But, he is in need of considerably more help.

7. T. C. (E 258) was a very small, somewhat frail youngster who gave the impression of being only about 11 or 12 years old. In the first few weeks of the program, he came once or twice and then was truant for several days. When the counselor went to his home to find out why this was so and to bring him back to the program, she was advised by his mother that he often had to remain at home, particularly in winter, because there was not enough warm clothing to go around amongst all the children in the family, so that they took turns using what was available. There were 16 children in the family, which was being supported by the Welfare Department. The father who lived with them was unemployed, and an alcoholic. On learning of this situation, several steps were taken: referrals were made to see if additional help could be obtained from Welfare; and, a collection of clothing for T. was taken up amongst some of the teachers at the school. Most importantly, he was given a winter jacket. After this he began attending the Project and school with somewhat greater frequency, but truancy was still a big problem. It seemed to fit in with a general attitude of apathy and indifference which characterized this youngster's approach to adults or authority situations. It became clear to both us and the boy himself that the primary reason for his not being in school had been his just not wanting to go. Working with him on this problem led to considerable improvement over the course of the year so that by the end he was attending most of the time. At the same time, however, there was a behavioral change from his being very quiet, passive and withdrawn to his becoming much more playful, somewhat destructive, and very disruptive in the workshop. He started mischievous acts in the shop and got other youngsters involved in them with him. This kind of behavior was recognized by staff as probably representing a step forward for him in terms of personal growth, even though it caused many administrative problems. However, much more help will be needed if he is to mature even further, and learn to channel some of this energy towards getting more real satisfaction for himself.

8. K. J. (E 261) was a very childish looking, withdrawn, brooding youngster. His speech was rambling and circumstantial, and suggested only a very tangential relationship with reality. Much of the time he was very severely depressed, and frightened. He isolated himself from the other boys in the program and made no friends at all while he was here. With regard to his work in the shop, he would try to do what was expected of him, but his abilities were very limited. At this point in his life, it was felt that the most important service we could offer him was counseling around the need to get help with his personal problems. This was done and both he and his mother agreed to seek treatment for him. A psychiatric examination was arranged through the Rehabilitation Commission. Their psychiatrist recommended hospitalization as the preferred method of treatment. When this was discussed with K's mother, however, she changed her mind about the entire matter, claiming that he had begun to improve spontaneously. Another factor may have been her own fears and/or guilt feelings about sending him away, as well as concern about her own loneliness in such an event—she had no one else but an infant daughter. Under the circumstances not much could be done, except to advise her that if she changed her mind, further assistance would be available through either the school or the Rehabilitation Commission. K. returned to the school and according to his teacher he was functioning alright since he was "quiet and caused no trouble." The

Department of Child Guidance was provided copies of our diagnostic evaluations and alerted to the need for further help for this boy.

9. E. O. (E 262) was one of the only boys in our program who had gone through the regular school system, partly through the Junior High School level. He had been held back in grade several times, but had also made some movement forward. Earlier testing had classified him as retarded, but for some reason he was not placed in special education classes until two years later. When this occurred he reacted with considerable shock and anger, and refused to do any work. It was at this point that he came into our Project. Once he saw the nature of the work here, the refusal to work became even stronger. He felt that he had no alternative but to quit school. In some sense we felt that his feelings about the situtation were justified, particularly in terms of the work here not being appropriate for him. Since he was interested in auto body and fender work, we decided to move him out of our workshop program and into an OJT in that field. He has functioned very successfully in the new situation in terms of rapid learning, responsibility on the job and reliability. In fact, his boss has indicated that if he wants it, he can have a job there for life.

10. S. E. (E 263) was a small but well built youngster, who seemed sullen and angry most of the time. His activities prior to his coming to the Project were characterized by a great deal of anti-social acting out. He had been on probation several times, and had spent some time in reform school. When he came for the intake interview for the Project, he answered the questions with a mixture of honesty and bravado. He said that he did not get along too well with his father, particularly if the latter would not give him money when he wanted it, and that he responded to being thwarted in this way by going out and snatching someone's purse. He felt he should get his way, and if there was a conflict of interests everyone should look out for himself.

Despite his air of bravado, S. seemed to be looking for some kind of help, and for more real contact with adults he could trust. Thus, in the first few weeks that he was with us in the Project, he seemed to adjust very well, and worked steadily and well. But gradually he gathered a small group of followers around him who began stealing small things around the Center. And, even worse, he began bullying some of the weaker, more frightened boys to get them to give him some of the work they had done which he then turned in as his own, or to extort some of their money from them on pay day. He responded to counseling with angry, sullen silence. Eventually, the Project staff decided that we were not really in a position to work with this youngster, and that keeping him in the program under these circumstances was unfair to the other boys. It was therefore decided that he be dropped. He returned to school on a full time basis for the remainder of the year and then applied for participation in a local rehabilitation program affiliated with the War on Poverty. There he was not involved in the anti-social behavior, but they were having difficulty with him in terms of his falling asleep on the job.

S. was one youngster with whom we definitely failed to have any positive effects. He attributed the deterioration in his behavior to the feeling that we were trying to cheat him and keep him from earning money, and referred in this connection to an incident in which he was told he would have to improve the quality of his work in order to be paid for it. The likelihood is that, had it not been that incident, he would have found some other reason for resorting to destructive behavior patterns. Another factor which was probably also important was that during this period, his father started staying away from home and eventually left altogether. A possible third factor, related to the acting out, the subsequent pattern of falling asleep, and a history of fainting may be an impulse disorder stemming from an as yet undiagnosed, sub-clinical epileptic pattern. At the time of the follow-up study this last possiblity was being looked into by the agency working with him, in co-operation with the Rehabilitation Commission.

11. D. H. (E 267) was a timid, fearful youngster who was alternately withdrawn or loud and immaturely aggressive. He was known among the other boys as being unable or unwilling to really defend himself and was therefore frequently the butt of their aggressive hostility. Some of his own playfulness drew the aggression upon himself. This interplay was such that he was unable to make

or maintain any friendships, a pattern which fit in with his somewhat paranoid suspiciousness. The serious emotional problems which he showed were understandable in view of his very severely deprived background. There was not, and had never been a stable man in the home. His mother was a chronic alcoholic, who had beaten her infant children and had not properly cleaned or fed them, etc. Eventually the court awarded their custody to their grandmother, who was being aided by a local Children's Service Bureau.

Early in the counseling with D., it was realized that he was much too immature to even begin dealing with vocational issues or plans for the future. In fact, most of what he talked about in counseling was clearly wish fulfilling fantasy—and it was very difficult to get beyond this. He himself felt that he was not ready to go out and go to work, and intended to return to school. In view of these factors, it was decided to have him seen by the staff clinical psychologist, for essentially a kind of modified play therapy (utilizing drawings which he loved to do), supplemented by some counseling centering on helping him to understand some of the inter-personal difficulties he ran into in the shop, i.e., fights with the supervisor or with some of the other boys. Some clear improvement was seen over the course of the year in terms of his increased understanding of himself, and a growing ability to speak more openly and honestly about himself. A concomitant sign of improvement was his grandmother's statement that for the first time he had begun to make and hold on to some friendships with boys his own age. On the negative side, on the other hand, were the facts that his work in the shop remained poor and his behavior there continued to be very disruptive. In addition, when he was seen for the follow-up study, it was clear that though he was officially still going to school, he was playing hookey a great deal. Arrangements were made with the Children's Service Bureau for him to be seen regularly by one of their caseworkers.

12. M. K. (E 276) also had a severely deprived background with no stable man in the home and neglect by his mother. For seven years prior to his entering the Project, he too lived with his grandmother, because his mother was in jail for manslaughter. His behavior in the Project was characterized by continuous fluctuation. At times he worked well, and seemed motivated to do well, but at other times, he would become apathetic and neglectful. He seemed to feel hopeless about what he could do even if he tried. Also, if rewards were not immediately forthcoming as a result of his efforts, he would get discouraged, angry, and passively resistant. Partially, his reaction may have been justifiable, although his manner of dealing with disappointments suggests that he will continue to have difficulty adjusting to and holding on to job situations. For example, he wanted a part-time job very badly, and hoped that if he did well, we would place him. Unfortunately, this expectation may have been partly fostered by the nature of our program, and even implicitly promised by staff members. In fact, such placement could have been beneficial, and he was, to some extent, ready for it, but he was only 15 years old and we were unable to find a placement for him. Over the course of the year with us, his functioning deteriorated considerably. The issue of the job may have been one factor. But not only was it a matter of his productivity deteriorating in quality and quantity, he also began showing hostile and aggressive behaviors, which if continued, may get him into considerable difficulty. He began playing around in the shop in such a way as to break furniture and fixtures, he would throw things out the windows and on one occasion, smashed someone's car windshield and he was caught stealing money from the purse of one of the staff members, and had probably done this several times before. Most of these actions occurred in the last few months of his participation in the program. In addition, at this time, truancy increased and his grandmother expressed considerable worry about his spending a good deal of his time with boys who had gotten into trouble for using drugs. At the time all this was occurring, he was facing the prospect of a serious disruption in his home life due to the fact that his mother was set to be released from prison and to come to live with him and his grandmother. Even though his grandmother had legally been given complete responsibility for him, she was having difficulty understanding him at all (she seemed quite limited) and felt discouraged by the problems she was having with him, so that she was threatening to withdraw from the situation and put the problem back in her daughter's lap. Unfortunately, it was not possible to offer them further service at this time, nor to get them to seek help elsewhere.

13. B. R. (E 295) was one of the more capable youngsters who took part in the program. Despite his capability, however, he did little or no work in the shop, except when he felt like it which did not happen too often. He was content to do just enough work to earn $1.00 each week and no more. He would then sit back somewhat pompously, lording it over the boys who were working, or distracting their work. One factor behind this was that early in the year, his father who was working for the catering service of the Newark Airport, had gotten him a full time job there. He worked at the job in the afternoons after school and on into the evenings. When he first mentioned it, we were somewhat skeptical about the truth of what he was saying, especially in view of his failure to work with us, but also in view of a statement only recently made by his mother to the effect that even though he was her oldest son, he was the most clinging and depending, afraid to travel or go places by himself and therefore, tending to spend all of his time around the house.

Despite the fact that B. said he was working full time and seemed not to be responding at all to our program, he did not leave even though he was legally able to do so. Presumably he wanted our help in getting into the trade training program in auto body and fender repair work in the adult technical program at a local high school. Even though we indicated that he would have to prove his capability, his functioning in our workshop showed no improvement. We did, however, call his employer and found out that he had in fact, been working full time for several months and that after a brief period of doubt about whether he would be able to make it at all, he had improved considerably and they were very pleased with his work (so much so that his employer was willing to hire several more of our boys). Based on this information, and in spite of his poor functioning in our shop, a referral was made to the adult technical program. When we contacted him after the new school term had begun, he said that he was finding the program there difficult, but that he thought he would be able to make it through. However, we later learned that he had not in fact been going at all—that he had attended class one day, had trouble understanding what the teacher was talking about, and never returned. He continued in his job at the airport. It would seem then, that here was a youngster who did begin to show some degree of success over the course of the year, but for whom participation in the Project was not really very helpful.

DISCUSSION OF RESEARCH FINDINGS

As indicated above, the results of the present study are mixed. Some goals were achieved; others were not. A summary of Project findings is given below along with an interpretation of their possible meanings. Some factors limiting the generalizability of the data to other situations are also discussed.

Positive Contributions of the Project

1. A comparison of the work activities of the Experimental and Control groups after termination of Project participation showed a somewhat higher percentage of the Experimental group participating in employment. The higher rate of employment was particularly important for Experimental students whose I.Q.'s were below 75 and for the students with higher Social Maturity Quotients. These results indicate that the Project did have some measure of success in improving the actual vocational functioning and outlook of the mentally retarded adolescents whom it served. Although this result cannot be attributed to any single program component, both participation in a work setting and a vigorous placement program seem to have contributed to the end product.

2. A comparison of the post-Project involvement of Experimental and Control group subjects in continued training showed important differences in the kind of training sought. Members of the Control group most often tended to remain at the Montgomery Street School, whereas members of the Experimental group went on to complete other kinds of training such as that offered in vocational school programs, on-the-job training, the Job Corps, etc. This finding was particularly relevant for students with I.Q.'s above 75. The finding may be accounted for by reason of the fact that the Project was able to recognize youngsters who had greater capability and to encourage and

help them to move on to other training more closely in keeping with their abilities. The Vocational Guidance Services of the school were much less effective in providing the service.

3. Project participation did have some effect on the student's school drop-out rate, in that more of the Experimental subjects than Control subjects completed the Project year in school.

4. Project participation apparently had some positive effect on the social adjustment of the students. This can be seen from the fact that fewer of the Experimental than Control group students were institutionalized during or after the Project or reported at the time of the follow-up study that they had had continued difficulty with the law.

5. The criterion of Case Closure as "Rehabilitated" by the New Jersey Rehabilitation Commission could not be used to differentiate the Experimental and Control groups. Routinely, all Experimental Subjects had cases opened at the Commission. Within the Control group, however, only a portion of the students were referred to the commission for services. It is not clear whether a consistent basis was used for making such referrals. However, it seems apparent that the Controls that were referred cannot be characterized as an unselected group in regard to referral in the same terms as the Experimental group. Since referral to the New Jersey Rehabilitation Commission gives students vocational opportunities that they may not otherwise have, the fact that all Experimentals were referred to the Commission represents a contribution by the Project. The data suggest that in routine practice students do not ordinarily get referred to the Commission in large numbers. For example, among the Controls in 1964-65 only 12 (24%) had been referred for this service, at the time of the final follow-up study.

6. The case history material indicates that the Project may have had beneficial effects on some of the participants, which were not measurable in terms of the objective vocational and educational success criteria used in the research. Individual gains were noted in areas such as recognizing one's problems and seeking further help, beginning to make friends with boys one's own age for the first time, and becoming more open and aggressive and less passive and withdrawn.

Other Findings

1. A Comparison of the Experimental and Control groups on a battery of tests measuring manual dexterity, work skills, job find skills, job knowledge and academic achievement showed only slight differences between the two groups in the amount of improvement they exhibited at the end of the Project year. The Experimental group showed greater gains on the Purdue Pegboard Test, only one of the measures of manual dexterity; and the Control group showed somewhat greater gains in Arithmetic Achievement. These findings would seem to fit in with the fact that the program of work in which the Experimental subjects participated stressed manual activity, on the one hand, and cut down on the time actually spent in school learning academic work on the other. It should be kept in mind, however, that the percentages of students actually demonstrating improvements in functioning in any of the tested areas was quite small, and that in fact, many of the students actually performed much worse on retesting as compared to the tests taken before entry into the Project. This deterioration in functioning may have been largely due to the factor of motivation—i.e., before entering the program, students may have looked forward to it with some degree of eagerness, as a new opportunity to prove their capabilities or to get ahead, whereas at the end of the Project year, the Control group students who had been disappointed by not getting into the program may have felt little desire to cooperate or do their best because it had had no effect previously and the Experimental subjects may have felt no need to do their best because they knew their program at the Occupational Center of Essex County was ending anyway. These are, of course, only speculations. In general, however, it must be concluded that few of the boys showed progress over the year as measured by test functioning.

2. Although the Experimental subjects were more frequently employed than the Control subjects, they did not demonstrate any greater job stability as measured by the frequency with which students had held any one job for a period of six months or more.

3. There was also no difference between the Experimental and Control groups between the percentages of students who were "just doing nothing" i.e., not involved in work or continued training —after the termination of Project participation.

4. Age was the most important determiner of "successful" post-Project educational and vocational activities, far outweighing the effect of Project participation.

Limitations of the Study

A number of factors should be kept in mind in interpreting or trying to generalize from the results of the present study. These factors include:

The Sample Served—In the design and planning of the present study the statement was made that we would be providing a work-study program for mentally retarded adolescent boys. The population of students served by the program were all in attendance at the Montgomery Street School, one of the facilities in the Newark School System, which is specially designated to serve mentally retarded adolescent boys. We found, however, that the population of students thus served, had many characteristics which made them different from the kind of retardates which the program planners expected to encounter. They represented what might be considered a very specific subgroup of retardates. Most of these students were Negroes and Puerto Ricans from the lowest socio-economic groups, whose educational retardation is probably attributable more to social and cultural deprivation, maladaptive behavior patterns, and the failure of society and education to effectively reach them and motivate them towards education, rather than to inherent limitations in intellectual capabilities. Intelligence tests showed that many of the students were in fact, not really retarded at all (according to current concepts of mental retardation), or were the highest level of retardates.

In interpreting the results of the present study, this factor should be considered. For example, the results show that the value of this program to the population served, was limited. But, we do not know what the achievements of the program would have been had it served a population of more severely handicapped retardates, or a group whose learning difficulties were based on limitations in organic brain functioning. We also do not know what the results would have been had a female population been served. Thus, the program as it was originally conceptualized might have addressed itself to a different group of retarded adolescents for whom it might have been more useful.

The Rehabilitation Setting—The present study was conducted in a sheltered workshop which serves the mentally retarded, but specifically retardates of a lower level of functioning than the students who participated in this Project. Therefore, in connection with the emphasis of programming at the Occupational Center, the kind of work that was available tended to be very simple, to require a very low level of capability, and to be limited to only a few kinds of tasks. The fact that this work was much too limited and lacking in challenge for many of the Project participants, and was considered demeaning by some of them, sets real limits on the Project's findings. A work study program which provided the youngsters with a greater variety of jobs, with more challenging or more interesting jobs, or with jobs more related to the kind of work they might expect to do or think they might like to do, might have achieved different results.

Limitations in the Reliability of "Self-Report" Data—A serious defect in the present study is the fact that it relied very heavily on data obtained by direct questioning of the students. Such data is necessarily dependent upon the honesty and completeness with which answers are given. In the present case, outside checks on the information given were often impossible or much too impractical to obtain, so that we had no real choice but to use the information as it was given—except when it was obviously incredible, which did not happen more than a few times.

There are some very real reasons for questioning the veracity of the information given in this way. The clearest example of this has to do with the issue of the students' reports that they had worked prior to coming in the Project. According to the data given in Table 1, the number of students reporting a prior work history was greater in the 1965-66 group than in the 1963-64 or the 1964-65 groups. This is rather curious in view of the fact that the group thus reporting the previous work experience was the youngest and the least mature behaviorally and socially. Furthermore, with the 1965-66 Experimental population, it was possible to make a check on the consistency of such reports (if not their accuracy) since in this group, each student was interviewed independently on two separate occasions several weeks apart. Comparing their responses then: 22 students said both times that they had worked before; 15 said both times that they had not worked; and 13 gave inconsistent responses. Therefore, 26% of the students gave unreliable information.

This is one area in which the data are known to be questionable.

The degree of accuracy of other self-reports is not known, but could be equally unreliable. The differing experiences of the Experimental and Control groups could certainly have led to different attitudes towards the questions asked in the follow-up study, or more specifically, to the staff of the Project who were involved in conducting the study. For example, members of the Experimental group who had gotten to know the Project staff quite well, might have responded in any one of a number of ways. They might have wanted to please or impress staff members by saying that they were doing well; some might have wanted to show us that we had underestimated them and that they were doing well despite the fact that we had felt their abilities to be limited; or some might have learned to feel sufficiently comfortable with members of the staff so that they could tell the truth even if it was negative. Members of the Control group, on the other hand, might have thought they no longer had to make a good impression since they would not in any case attend the Occupational Center; or they could have wanted to give the impression that they were doing well despite the fact of not having received any help from the Project.

What all this amounts to, is that we have no way of evaluating the veracity of our follow-up findings, or the direction that inaccuracies might have taken. All that can be done at this point is to present the follow-up data and suggest that they should be viewed with caution.

Chapter V

INTERAGENCY COOPERATION

One of the major purposes of the present Project was to demonstrate the creation, development and implementation of a vocational rehabilitation program for mentally retarded school youth, which involved the cooperation of three participating social agencies: a public school system, a state vocational rehabilitation agency and a community workshop. It was hoped that a pattern of community relationships would be developed, which would serve as a guide to vocational rehabilitation programs in other communities. In evaluating the success of the Project, therefore, we should also consider the extent to which these aims were or were not achieved. The answer to this question will be presented mostly in terms of some of the problems encountered, the attempted solutions, and the lessons which we learned from the experience which might helpfully be passed on to others.

It should be noted that a great deal of successful cooperation did occur as a result of the continuing interest of the staffs of the Newark Board of Education, especially the Montgomery Street School, and the New Jersey Rehabilitation Commission, particularly the Newark District Office. The Board of Education played a vital role in the referral and screening processes by providing space in the Montgomery Street School where Project personnel interviewed and tested clients, by interviewing students and their parents, and by making appropriate records available to the Project. The Board also assisted the Project to obtain up-to-date medical reports, even to the point of assigning school personnel to accompany students to medical facilities. Teachers on the staff of the Montgomery Street School were very helpful in collecting clothing for a Project student in a situation of emergency need and helped in the planning and implementing of student field trips. The New Jersey Rehabilitation Commission provided selected appropriate services needed by Project clients including a variety of medical and other evaluative procedures, and follow-up placement and counseling. And both the Board and the Rehabilitation Commission assigned staff members to participate in activities of the Project Advisory Committee.

Some of the difficulties encountered by the Project in interagency teamwork included:

1. The pre-Project planning occurred primarily on a higher echelon adminstrative level. Thus in each of the cooperating agencies, members of the basic agency staff most directly involved with the program were not consulted in advance for their ideas, nor an assessment of the problems they might encounter. They were, instead, handed their new responsibilities associated with the Project as a fait accompli. Such a method leads to misunderstanding and resistance. It was our feeling that the Project would have been better served, for example, if meetings had been held with the teachers and counselors before the introduction of the program. Such meetings might have served to involve them in the program in such a way as to increase the degree of positive motivation and interest.

2. Since cases were opened at the Rehabilitation Commission for all of the members of the Experimental group, this meant that an additional fifty cases had to be assigned to a counselor at the Commission. Also, fifty members in the Control group had to be screened and evaluated at the beginning of each new Project year. In the first year of the Project, the counselor who was responsible for referrals from the Montgomery Street School was expected to handle all this work, in addition to her regular caseload. She was overburdened by this additional responsibility and found it difficult to provide services for the Project students. A solution to this problem was suggested by the Rehabilitation Commission to the effect that an additional counselor be hired by the Project to be stationed part of the time at the Newark Office of the Commission, to handle

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the screening, selection and other activities necessary to facilitate the referral and service process thoughout the year. This counselor functioned under the joint supervision of the Commission and the Project, serving as a liaison between the two agencies. Developed as an experimental procedure, this arrangement proved highly successful. In the planning of future Projects, this matter of distribution of responsibilities associated with the new programs should be more carefully evaluated. The procedure of using a representative of the Project staff as a liaison with the Commission may be workable in other programs of this type.

3. A similar problem of failure to take into account, in advance, the workload and responsibility commitments of persons to be involved with the Project occurred with the school in two ways. First, the need for data from school records, for reports on the functioning of youngsters in school, and for a social worker to act as liaison between the Occupational Center and the school, and between the Project staff and the parents of the students, put a great deal of pressure on Board of Education personnel. They therefore recommended our sharing with them the cost and services as well as the supervision of a social worker, who would work part of the time at the school and/or the Bureau of Child Guidance. This plan was put into effect, but its success was not properly tested because of a problem of personnel turnover. A second and related difficulty involved the time commitments of the teachers, whose school day was so heavily scheduled that it was not possible to hold team meetings during their regular working hours. It was to the credit of the teachers that they often came to such meetings on their own time. But such an infringement on their time could not be made indefinitely and ultimately these efforts at communication, sharing of knowledge about the youngsters, and sharing of planning and decision making were given up. No really stable and workable substitute was found. Again, such difficulties might be avoided by other projects with more careful evaluation and planning prior to the initiation of new programs. Consultations with all persons concerned would probably have made clear the need for regular team meetings and time allotments might have been agreed upon in advance. In the present situation, the calling of these team meetings represented a change which occurred while the program was in progress, and therefore, indicated the need for flexibility in programming which was not a part of the initial planning. Much more such flexibility would have been helpful.

Chapter VI

SUMMARY, IMPLICATIONS AND RECOMMENDATIONS

The present Research and Demonstration Project established a work-study program for mentally retarded adolescents, in the hope that such a program would improve the vocational functioning of these adolescents. The rationale for the study was derived from the suggestions of previous researchers that many of the difficulties experienced by the retarded in their efforts to move from the world of school to the world of work might be successfully avoided if an intervening "transitional" training experience were introduced which combined aspects of both of these settings. The program therefore attempted to exert a positive influence on the post-school vocational adjustment of the retarded youth by modifying the experience that was ordinarily provided for them in their last year at school. The following program changes were instituted: condensation of the time spent in academic pursuits from five to three days without eliminating essential content; modification of the school curriculum to include greater emphasis on vocationally related material; and, assignment of the students to a community workshop for additional training and rehabilitation services on the two days that they no longer attended school.

The program at the workshop included paid work experience on a piece-work basis, intensive individual and group counseling, counseling services to parents, placement, and field trips. In addition, medical and para-medical evaluations and services were made available to the students through the local state rehabilitation agency. The impact of this program on the vocational adjustment of the students who participated was evaluated by comparing this Experimental group to a matched Control group who remained in the regular five day per week school program. These two groups were compared in terms of improvement in functioning on a battery of tests of vocationally related and academic functioning, and by means of follow-up data of post-Project educational, vocational and social activities. A further assessment of the contributions of the program was made in terms of a study of case history material on what happened to some of the Experimental Subjects as a result of their participation in the program.

The Subjects were 300 male students (150 Experimental and 150 Controls), whose tested IQs were in the 43-83 range, and who were in attendance at a Special urban school for the retarded. They ranged in age from 14 to 18 years, with preference being given to the older group. The younger students were included because the numbers required by the study could not otherwise be met. This meant that for many of the participants this could not in effect be their final school year. In addition to age and IQ, several other characteristics of the Subject population were of critical importance: the great majority were Negro; almost all were from the lowest socio-economic groups; many came from multi-problem families, characterized by parental absence due to desertion, divorce or death or by other problems such as alcoholism, mental illness and difficulty with the law; many had themselves been in trouble with the law; many exhibited behavior patterns of open hostile aggressiveness or of self-defeating passive resistance; and many reported work histories prior to coming into the Project. In general, the impression of the Project staff was that although these students were functioning academically on a retarded level, in most cases this retardation was probably not due to inherent organic limitations as much as to socio-cultural and emotional problems. Several of the youngsters were in fact diagnosed as suffering from severe emotional impairment.

The study hypothesized that after the year of Project participation, the Experimental group would differ from the Control group in the following ways: 1) they would show greater improvement of performance on a battery of vocational and academic tests; and, 2) they would show better post-Project vocational adjustment. The first hypothesis was not supported. The second hypothesis was partially supported, in that there was a somewhat higher percentage of employment among members of the Experimental group, particularly for the sub-group of students with IQs below 75, and for students with higher social maturity quotients. The Experimental and Control groups, particularly those with IQs above 75, also differed in that the Experimentals more often completed some kind of more advanced educational or vocational training after the Project year. On the other hand, the two groups did not differ as far as job stability was concerned, nor in the percentages of students who were involved in neither work nor school after leaving the Project.

Some other positive contributions of the Project included: 1) the fact that more of the Experimental subjects completed the Project year in school; 2) the fact that fewer of the Experimental than Control students were institutionalized during or after the Project or reported new incidents of difficulty with the law; and, 3) the observation from the case history material that some of the participants showed signs of personal growth in the course of the year.

IMPLICATIONS

Our experience with this Project raises some important questions for both rehabilitation workers and educators. Some of these are discussed below:

Diagnostic Procedures and Definitions of Retardation

The classification system of the American Association of Mental Deficiency defines mental retardation as . . .sub-average general intellectual functioning which originates during the developmental period and is associated with impairment in one or more of the following: 1) maturation, 2) learning, and 3) social adjustment." Persons diagnosed as retarded in accordance with this definition are then sub-divided with regard to the severity of their deficiency. The critical element of the diagnostic process is the assessment of IQ, usually according to some standard test. Thus, the diagnostic emphasis is on current functioning in terms of observable behaviors. Further classification in terms of the probable origin or cause of the difficulty is often not made. Behind such an approach is the idea that what is important is the determination of the amount of mental retardation and the degree to which the affected individual is thereby incapacitated, and the belief that the degree of incapacitation is not a function of the cause.

In recent years this approach has begun to be challenged, especially in terms of literature on "cultural deprivation." Our experience with the present study lends support to these challenges. Thus, the retarded students served by the Project had all been diagnosed as retarded based on their obtaining IQ scores in the 43-83 range. The Project took place at the Occupational Center of Essex County, a community sheltered workshop with several years of experience working with persons of similar tested intellectual ability. Yet it was found that the students who took part in the Project were very noticeably different from the majority of person previously served at the Center. The nature of the work available at the Center was inappropriate to the capabilities of many of these youngsters. It would seem clear then that many very different people might obtain a particular IQ score, and that because of social and cultural differences the kinds of help they require might also be different.

Of crucial importance in this difficulty is the question of what happens when a diagnosis is made. Diagnoses are "labels" which have implicit connotations in addition to their explicit definitions. These secondary meanings, though never specifically stated will nevertheless affect the behavior of persons hearing the diagnosis. Some of the consequences of labeling a person as retarded might be undesirable.

First, the statement that someone is retarded implies not only that his current functioning is below average, but also that his capabilities are inherently limited—i.e., not only that he has not learned, but that he is largely incapable of future learning. Thus, an effort may be made to help him improve his functioning, but this would be done in terms of limited, and perhaps limiting, goals. However, for the person who has not learned, although he has the potential capability, this lowered level of aspiration may have negative effects, and may in essence not be helpful.

Second, the statement that a person is retarded implies that his difficulty is primarily intellectual in nature, so that remedial efforts will concentrate their attention on learning. Where the learning problem is in reality secondary to, or caused by emotional problems, as was the case with many of the boys who took part in the present study, other much needed services might not be provided.

Third, by assuming that the problem is a characteristic of the person, our attention is focused on changing him. Under these circumstances we are less likely to try to change either the social or cultural environment, or existing educational and rehabilitative practices.

It seems clear from the above that some kind of revision of existing diagnostic procedures is needed so that the person is not merely given a label, but rather that for each person an attempt is made to define the nature of the problem and consequently the preferred direction of remediation attempts. Some statement of "probable cause," whether genetic or bio-chemical, socio-cultural, or emotional seems called for, in addition to noting the presence of retarded learning and the severity of the retardation.

Differential Programming

Related to the above statements is the comment made earlier in this report that many of the youngsters who participated in the project seemed to have been classified as retarded without appropriate qualifying explanation. The explanation would add to the differential power of the diagnosis, assisting the selection of special educational and rehabilitation services that are most appropriate. Thus the kind of help needed by one subgroup might be very different from that needed by another. For example, differing degrees of emphasis on educational remediation would be required, depending upon the principal dynamics involved in the retardation.

The present study made it clear to us that such differential programming is essential. At present, we have clues rather than definitive findings relating to the type of programming which would be most useful. Based on the Project experience, some of the following ideas may be suggested.

Intensive Mental Health Services. One thing which was very clear to the Project staff who worked with these youngsters was the extent to which they are in need of very intensive mental health services. Most of these students should participate in both individual and group treatment programs, involving the services of persons trained in all of the mental health professions: psychiatry, psychology, social case work and social group work. For these youngsters such services would seem to be just as necessary as the already existing services of educational remediation and vocational counseling. This recommendation is based on the behavioral characteristics of the students served which have been detailed above, including aggressive, hostile, and anti-social behaviors, as well as fearful and self defeating behaviors. Since for many of these youngsters the lack of academic achievement is closely intertwined with emotional and motivational factors, it would seem highly doubtful that a purely academic approach to the problem could be sufficiently successful. Existing community agencies should help to make mental health services more readily available to these students than was possible in this Project. Such mental health services should begin for the students as early as possible—i.e. as soon as the diagnosis of the problem is made.

Higher Level Training. Many of the adolescent students who particpated in the Project seemd to have the potential ability to learn both academic and vocational work on a higher level than is usually provided for the retarded. Some might be capable of completing regular high school work, and others might at least be able to learn to function in skilled or semi-skilled work. Present practices of setting low achievement goals for them, or preparing them for jobs which require no skill, pay very little, and are readily available because not too many people want them, tend to strengthen already existing feelings of hopelessness and despair. Motivation towards higher goals might tend to improve achievement.

Both the schools and rehabilitation agencies should recognize the higher capabilities of many of these youngsters and provide more of this higher level training for them. However, because of their emotional problems they might require very close personal contact with their counselors during training periods, otherwise many who have the ability might prove too unstable to achieve their goals.

For sheltered workshops, the needs of this group present a complexity of problems and challenges. The Occupational Center of Essex County, as it is presently set up, is not really in a position to serve this population adequately. It probably shares this problem with the majority of sheltered workshops serving the mentally retarded. Two courses of action might be available to such workshops. They could decide to limit their services to retardates of more limited potential capability, on the one hand, or they could undertake substantial program expansion which would include evaluation and training for a much more varied group of vocational tasks on many levels of difficulty, on the other.

Future Programming. The statements made above include implicit suggestions about the directions which might desirably be attempted in future programs. Such suggestions are tentative in view of the complexity of interpreting the results obtained in this study. Two factors are important. First, the data presented represent the impact of our total program which included several components: a work-study combination, intensive counseling, comprehensive placement activity, etc. Some beneficial results were obtained from this combined program, but the results were mixed. Although the subjective impression of the project staff was that the counseling and placement activities were our most important contributions to these youngsters, and this idea receives some potential support from the data on the different post-project educational and training activities engaged in by the Experimental and Control groups, we must make it clear that we do not really know for sure what the relative contributions of the various program components were, nor what would be the effects of programs which included each of these components either singly or in smaller combinations. Additional research is needed to determine which components are most helpful. Second, the data presented are for a relatively heterogeneous group of students with widely differing needs. Their differential responses to newly proposed programs, as well as to the various services offered in this program also need further intensive study.

Because of these conditions, little can be said in a general way about the value or effectiveness of work study programs. The idea of being paid for the work they were doing did seem to be a positive motivating force for many of the boys, but this got mixed up with other factors, such as the nature of the work, so that a mixture of responses to the program resulted. Since the work was relatively simple, it might have been a more useful training device had it come several years earlier in the careers of the boys. Functioning in this workshop might then have served as a guide for future placement of the boys both in terms of training and work situations, i.e. good work in th shop might indicate readiness to move into more responsible work settings such as part-time job placement, OJTs, etc. From our experience it would seem that future work study programs should be set up in such a way that the nature of the training is decided on a much more individualized basis, rather than having one identical program for all the participants. In addition, plans should be incorporated into such programs for the movement of a youngster out of the program—i.e. out of the school and/or the workshop—when other services would be more in keeping with his needs. On the other hand, the transitional quality of work-study programs which leads to the students seeing themselves as workers and hence as "more grown up," might encourage some of them to leave school much before they are ready to do so. Persons running work-study programs will have to be careful of this possibility also.

RECOMMENDATIONS

1. It was not recommended that the present program be continued since, despite the fact that some positive results were obtained, the program did not sufficiently meet the needs of the population served.

2. **The present program—including the level of the work available in the sheltered workshop—may be appropriate to the needs of some of the more limited students. Consideration should be given to continuing the services of the present combined school—work program, on an individual basis, for such youngsters.**

3. **Future work study programs for this population should strive for higher goals for the students, including higher level and more varied training, and preparation for skilled or semi-skilled work. There should be considerably less emphasis on placement of the youngsters in marginal fields of employment.**

4. **All of the social agencies currently working with persons labeled as "retarded" should work together for a revision of existing diagnostic practices so that youngsters whose limited functioning is a result of emotional or socio-cultural problems are differentiated, when possible, from youngsters who are more inherently limited.**

5. **Differential diagnostic procedures should then be followed by clearly different curriculum programming in the schools, or clearly different vocational planning.**

6. **Extensive mental health services should be given to all youngsters diagnosed as educationally retarded due to emotional and social problems. All subsequent programming for them whether towards higher educational or higher vocational goals would have to be accompanied by intensive and continuous supportive services in order to be successful.**

Appendix A

SCHEDULE AND CURRICULUM GUIDE
1964-1965

PREAMBLE

The following guide is developed to give the chronology of the Project Activities planned at the Occupational Center for 1964-1965. It includes, also, an introductory curriculum outline combining the curriculum and counseling at O.C.E.C. as well as the curriculum and counseling offerings suggested for the Experimental Group at Montgomery Pre-Vocational School. One exception is the inclusion of the control group in the formal evaluation of the Work Samples only.

Concentration on the same content outline, from different aspects at both O.C.E.C. and Montgomery Pre-Vocational School, is essential for the mentally retarded if an adequate transfer in learning is to be realized. Thus, for example, a discussion of work samples, their identification by use in the shops at Montgomery Pre-Vocational School and the translation of these experiences into oral and written language, culminating in brief social study units as to their occupational and social importance could achieve a unity of purpose in the two programs.

Problems pointed up in their presentation or evaluation at either O.C.E.C. or Montgomery Pre-Vocational School should result in meaningful remedial work, on an individual or group basis, until the difficulty is removed or decreased.

Though this outline is structured on a period plan, it does not mean that the time demarcations are rigid, particularly as they refer to the counseling process. The complete outline is counsel-oriented and is a continuing process from the beginning to the end. However, defining certain periods for coverage of specific material allows for formal presentation and intensification of meaning, vocationally.

Individual pupil charts to denote progress and achievement would be quite meaningful. These could be used by the teacher and counselor as a guide to further assistance and direction for the individual pupil.

If this joint planning is to be successful it is important that the program at Montgomery Pre-Vocational School be assigned the full time services of a teacher-counselor to match the guidance approach of the O.C.E.C. This is necessary if a philosophical and practical balance in operation is to be maintained between the two programs. Also, such a joint plan would bring the teachers of Montgomery Pre-Vocational School into greater contact and develop a greater identification of their efforts with the program at O.C.E.C.

This schedule and curriculum guide should at this time be considered tentative and subject to modifications throughout this coming year as our experiences indicate. Considerable expansion of the Guide will also be made as most of the items in the present Guide appear in outline form.

I First Period—September 10, 1964 to October 10, 1964

A. Evaluation and Training—O.C.E.C.

1. Evaluation (Experimental and Control Groups)

a. Work Samples

(1) Bench Assembly
(2) Kick Press Operation

        (3) Sorting Operations
        (4) Recognition of Hand Tools
        (5) Counting and Packaging
        (6) Visual Inspection
        (7) Mechanical Inspection

    b. Work Attitudes (Experimental Group Only)
        (1) Relating to material and time pressures
        (2) Sense of importance of work achievement in a work setting
        (3) Vocational interest and aptitudes on an individual basis
        (4) Problems deterrent to vocational success
        (5) Importance of improved work habits and attitudes

2. Training—Remedial (Experimental Group Only)

    a. Work Samples
        (1) Developing familiarity with vocational tools, machines, and materials
        (2) Identification of vocational tools, machines for use on various jobs
        (3) Guidance in increased vocational awareness and sophistication
        (4) Understanding the importance of accuracy, discrimination and perceptiveness
        (5) Development of necessary skills in the use of vocational tools, machines and materials.

    b. Attitudes—Remedial
        (1) Reinforced orientation to the pressures of a work environment
        (2) Further evaluation of individual vocational attitudes and interests
        (3) Analysis of problems blocking vocational success
        (4) Understanding the importance of the individual as a contributor and team member in an industrial setting.

B. Blending Programs at Montgomery Pre-Vocational School (Experimental Group Only)

1. Social Study Units (Different Ability Levels)

    a. Work Samples (Selected at Montgomery Pre-Vocational School)

    b. Work Attitudes

II Second Period—October 10, 1964 to November 10, 1964 (Experimental Group Only)

A. Evaluation and Counseling O.C.E.C. Individual and Group Evaluation

    a. Areas of Counseling
        (1) Personal hygiene, appearance and demeanor
        (2) Getting along with others
        (3) Accepting and benefiting from supervision
        (4) Improving work tolerance (sustained effort)
        (5) Improving work attitudes and work habits
        (6) Understanding the time factor in industry
        (7) Learning industrial procedures through first hand experience
        (8) Learning how to adapt and use free periods
        (9) Improving attendance and punctuality
        (10) Understanding and respecting performance standards on the job

B. Counseling (Remedial)

    a. Emphasis
        (1) Attention to personal appearance develops self-respect and gains respect from others.

(2) Good relationships develop personal well-being and add to team efforts.

(3) Ability to accept directions and constructive criticism improves skills and advances knowledge.

(4) Improvement of work habits and attitudes contribute to advancement on the job.

(5) Improvement of work tolerance depends upon the worker pacing his physical stamina to meet the overall schedule of the work program.

(6) Industry has certain deadlines to meet and can do so if all workers adhere to a regular pattern of concentration.

(7) Organized programs of work achieve efficiency by the acceptance by workers of standard industrial procedures.

(8) The stamina and skills of a worker will be sustained if the free periods for lunch, etc., are used wisely.

(9) Concentration on work, attendance, and punctuality develop a reliable worker.

(10) Following performance criteria set by industry makes an efficient and valuable worker.

C. Initial Introduction to Work Shop Tasks

a. Specific Curriculum Objectives

(1) To be aware of the types of jobs available in industry
(2) To learn to follow directions in processing a job
(3) To realize the need to work quickly and with precision on an assigned job
(4) To understand the meaning of concentration for accuracy and speed
(5) To know that a completed acceptable job is done step by step
(6) To value the supervision given on the job
(7) To improve dexterity and manipulation for greater efficiency
(8) To cooperate in promoting an industrial atmosphere in the workshop and classroom
(9) To develop a feeling of responsibility for the materials involved in the work process
(10) To appreciate the contributions made by fellow workers on an assembly-type job
(11) To become acquainted with the health and safety factors necessary for effective production
(12) To apply a simple knowledge of reading, language and numbers in the processing of a job

b. Sample type of Assembly Task

(1) Compact assembly process (Jacqueline Cochran)

(a) Set up individual and master cartons
(b) Remove compacts from plastic bags
(c) Insert metal pan, sifter, powder puff and brochure in compacts
(d) Close compacts and insert into cloth bags
(e) Insert cloth bags into individual cartons
(f) Label individual cartons with Kum Kleen labels marked White, Black or Blue (color is designated by oval design on the compact)
(g) Insert individual cartons into a master carton (3 per carton), label cartons with designated colors on individual cartons
(h) Pack 96 master cartons (288 compacts) into a larger carton and ship

(2) Bottle salvage process (Jacqueline Cochran)

(a) Unpack bottles and remove from individual cartons (6 per box)
(b) Remove bow-tie and brochure and replace them in individual containers and repack them in master cartons
(c) Unscrew cap, remove label from the bottle and empty the contents of the bottle out
(d) Place the bottle into hot soapy water and scrub with a one ounce bottle brush
(e) Remove the bottle from hot soapy water and place in luke warm rinse
(f) Remove bottle from luke warm rinse and place it in antiseptic rinse water, then lay out to dry

(2-A) Cap Salvage

a. Using a pointed object (old compass), remove old cap liner
b. Remove excess make-up from inside of cap with hot soapy water and a sponge
c. Place a touch of glue on new cap liner and insert new liner into the cap applying pressure with your finger

(2-B) On completion of both operations, pack bottles and caps into master cartons and ship along with individual cartons bottles originally came in.

(3) Well-Nut Process (Rockwell Division United Shoe Machinery)

(a) Insert card into plastic cover
(b) Punch hole through cover and card
(c) Cut chain to length
(d) Insert screw through chain into rubber covered nut
(e) Insert (d) into plastic tube and tighten
(f) Fasten other end of chain with similar bolt and nut to prepare cards (a and b)

(4) Packaging and Sealing Parts (J. B. Bronander Manufacturing Company)

(a) Count out 8 long plastic tubes and 22 short plastic tubes
(b) Count out 8 red plastic single sliders, 2 red plastic double sliders and 1 red plastic gusset
(c) Insert (a) and (b) into a plastic bag along with inspection sticker
(d) Seal plastic bag with heat sealer
(e) Pack in master carton and ship

(5) Re-labeling compacts and pressed powder boxes (Jacquelin Cochran)

(a) Remove old labels from compacts
(b) Check color code sheet
(c) Re-label compact after following (b)
(d) Pack in master carton and ship

D. Introduction to Money

As the processes for assembling are mastered and readiness for work is achieved by the pupils, the factor of wages for work done on sub-contract jobs at O.C.E.C. will be introduced. Thus, pupils will be prepared for the next period which involves actual participation in workshop activities at O.C.E.C. on a remunerative basis.

This workshop experience will provide pupils of the experimental group with pre-vocational and personality adjustment training. Such workshop experience will be supported by individual and group counseling as well as individualized instruction in a work situation.

E. Occupational Information

Again, this material requires formalized concentrated presentation. As indicated previously, this information is imparted indirectly from the outset and continued throughout the program for the year.

Audio-visual devices, particularly aid in focusing on the important points for pupil consumption. Such topics as the following, will be discussed on an individual and group basis:

a. The nature of work
b. Types of jobs available in the community and adjacent areas
c. Types of jobs available based on individual competence
d. How to get a job
e. Applying for a job
f. Preparation for the job interview
g. Personal job interview
h. Reasons for working hard and doing a job
i. Attendance, absenteeism, and punctuality
j. Safety habits on the job

k. Individual vocational goals and personal life ambitions
l. How jobs compensate the worker (fringe benefits)
m. Income tax and voluntary pay deductions
n. Social security
o. Banking a portion of earnings

F. Field Trips

Various industries in Newark and the environs will be selected where mentally retarded boys have been placed and are successsfully employed. Smaller industries, particularly, will be visited since experience has indicated that the mentally retarded have been successful in circumscribed operations.

Visitations to industries which sub-contract to O.C.E.C. will be planned so that pupils may derive some feeling of identification with the overall problems.

Larger industries which may employ mentally retarded youth will not be overlooked. Though placement may be possible in isolated cases only, nevertheless, orientation in the operation of these is necessary in order to develop a perspective as to the large versus the small industry. These field trips will be more meaningful if the staffs of O.C.E.C. and Montgomery Pre-Vocational School plan them together. It is suggested that a teacher from the Montgomery Pre-Vocational School accompany the pupils in the experimental group. Thus the blending of activities in both agencies will be enhanced by this cooperation.

G. Blending Programs at Montgomery Pre-Vocational School (Experimental Group only)

1. Social Study Units

a. Areas of Counseling

b. Workshop Tasks
(1) Assembling tasks
(2) Introduction to money

c. Occupational Information

d. Field Trips

e. Remedial Work
The responsibility for teaching in significant vocational areas, involving reading, language, arithmetic and allied academic subjects in which pupils require assistance, will devolve upon Montgomery Pre-Vocational School, completely.

III Third Period—November 10, 1964 to December 30, 1964 (Experimental Group)

A. Grouping on Basis of Vocational Needs of O.C.E.C.

1. On-The-Job-Training
Rehabilitation Commission

2. Immediate Placement
Use of part-time jobs in community outside of O.C.E.C. in afternoons

3. Workshop
Bench assembly, packaging, shipping and maintenance

B. Blending Program at Montgomery Pre-Vocational School

1. On-the-job training

2. Work Program

3. Assembling

IV Fourth Period—January 1, 1965 to June, 1965 (Experimental Group)

Continuation of all work programs as grouped in Period III. All other services, e.g. individual and group counseling, social case work with youngsters are continued. The initial part of this phase will be devoted to testing out the feasibility of the vocational plans formulated for each youngster in the prior period. The Job Development Counselor will directly supervise all placements and on-the-job training programs outside of the Center.

V Summer Program—June through August, 1965 (Experimental Group)

Students needing further service and who are not employed or in other training programs will be programmed for additional service during the summer months. This will be done on an individual basis and only to those students who would benefit from this service.

VI Research

Pupil achievement through the foregoing cooperative program should be evaluated at a specified terminal point just as other aspects of the program at O.C.E.C. are treated statistically. This will give balance and complete meaning to the whole program of research at O.C.E.C.

Appendix B

EDUCATIONAL AND INDUSTRIAL PLACEMENTS AND REFERRALS MADE BY THE PROJECT

TABLE 9

Referrals to Training Facilities and Their Outcome

Training Facility	Number of Referrals 1963-64	1964-65	1965-66	1963-66	Type of Training	Outcome
Vocational School Adult Technical Program	6	1	3	10	Cabinet making;machinist: brick masonry; auto body and fender repair.	All clients from 1963-64 successfully concluded first year of program and elected to extend their training beyond the basic one year minimum; client from 1964-65 completed 1 year training and now working in field; three clients from 1965-66 quit after short trial.
Vocation School in New York City	—	1	—	1	Food trades.	Client started 9/65 and still attending in second training year.
Evening School	1	1	—	2	Academic program.	Both completed 9th grade equivalency program—both found jobs independently.
Evening School	—	1	—	1	Explorative drafting.	Client didn't follow through.

TABLE 10

Referrals to Other Agencies and Their Outcomes

Agency	Number of Referrals 1963-64	1964-65	1965-66	Total	Type of Work or Training	Outcome
Self-placed with follow-up help from OCEC Placement Counselor	—	2	2	4	Upholsterer's helper; trucker's helper, part time; Machine operator.	Employer did not follow through on his committment; two jobs failed to materialize; one boy still employed.
Job Corps	—	6	9	15	—	Two presently in; one completed training; two quit; three changed mind about entering; one in application stage.
Youth Development Center-specific vocational training	4	2	—	6	Sheet metal; auto body; service station attendant.	Three from 1963 completed 36 week training program; three others didn't follow through.
Neighborhood Youth Corps	1	3	1	5	Maintenance training.	Still employed; one boy wanted summer only.
Employment Service	—	1	2	3	—	One client was referred by the service to Neighborhood Youth Corps who placed him in Public Housing Project; One client didn't follow thru; one client considered too limited, encouraged to return to school.
Manpower Development Training Act —multi skills programs	1	—	—	1	Auto body	Still in training.

TABLE 11

On the Job Training Placements

Subject	Group	Type of Training	Period of Employment	Completed Training	Earnings		Reason for Termination
					Beginning	Present	
0028	C 1963-64	Printing	6/1/65 to 9/1/65	No	$50.00/wk.	—	Unable to grasp concept of machine operation.
0116	E 1963-64	Service Station Attendant	6/64 to 8/6/64	Yes	$45.00/wk.	—	Unsatisfactory performance and attitude.
0116	E 1963-64	Service Station Attendant	10/8/64 to 1/1/65	Yes	$45.00/wk.	—	Unsatisfactory performance and attitude.
0116	E 1963-64	Service Station Attendant	10/11/65 to 11/65	No	$ 1.35/hr.	$ 1.75/hr.	Client quit over disagreement with employer - felt he was being criticized too much.
0120	E 1963-64	Printing	5/64 to present	Yes	$ 1.25/hr.	$ 1.75/hr.	—
0121	E 1963-64	Printing	9/17/64 to 4/1/65	Yes	$ 1.25/hr.	—	Unsatisfactory performance and attitude.
0147	E 1963-64	Silk Screening	9/28/64 to present	Yes	$ 1.25/hr.	$ 1.50/hr.	—
0154	E 1964-65	Auto Mechanics	7/65 to 10/11/65	No	$40.00/wk.	—	Quit over working hours and earning problems with employer which were instigated by subject's mother.
0161	E 1964-65	Silk Screening	5/1/65 to present	Yes	$50.00/wk.	$50.00/wk.	—
0174	E 1964-65	Auto-Body work	8/65 total of 3 weeks	No	$ 1.25/hr.	—	Decided to return to school.
0253	E 1965-66	Silk Screening	Part time 3/66-6/66 Full time 7/66-1/9/67	Yes	$ 1.25/hr.	$ 1.35/hr.	—
0261	E 1965-66	Auto-Body work	1/66 - 11/7/66	Yes	$ 1.25/hr.	$ 1.65/hr.	—
0266	E 1965-66	Television repair	Part time 3/66-6/66	No	$ 1.25/hr.	$ 1.80/hr.	Family pressured boy to stop.
0268	E 1965-66	Silk Screening	Part time 3/66-6/66 Full time 7/66-1/9/67	Yes	$ 1.25/hr.	$ 1.35/hr.	—
0288	E 1965-66	Bakery	3/66 - present		$ 1.25/hr.	$ 1.30/hr.	—

Appendix C

TEST BATTERY DEVELOPMENT

JOB INFORMATION TEST

Description

This is a test of information and attitudes concerning work. It is composed of 20 items which are read to clients together with three statements one of which would make the total item correct. The client then marks that statement which he believes would make the item correct. Reading of items is used to eliminate the possible effects of a client's limitations in reading ability.

Scoring

The items are scored as right or wrong and the total score is the total number of correct responses.

Development

The Job Information Test was originally developed as a 60 item "true" or "false" and "don't know" test which was read to the client. The client's responses were recorded by the tester on the client's response form. The total number of items was reduced to 52 when certain items were found too easy or too ambiguous for the group initially tested. The test items were changed from "true" or "false" and "don't know" items to a multiple choice (one correct answer from three possibilities) when it was found that the retarded group being tested was capable of responding to this more complex form of presentation. Finally, those items that were answered correctly by most of the group and those items that appeared ambiguous in connotation and those items not closely relevant to work were removed from the test. This resulted in the present form of a 20 item multiple choice job information test. The final 20 item form is given below.

Selection of the items for the final 20 item test were based on items significantly or highly differentiating high and low scorers.

TABLE 12

Correlations of Job Information Tests with Intelligence

Intelligence Test	Number in Sample	Correlation	Correction with Effects of Age Factored Out
Stanford-Binet with 60 Item True-False Test	22	.62	—
WISC with 60 Item True-False Test	16	.37	—
Primarily Stanford-Binet with 20 Item Multiple Choice Test (sample 1)	44	.25	.34
Primarily Stanford-Binet with 20 Item Multiple Choice Test (sample 2)	47	.39	.37
Primarily Stanford-Binet with 20 Item Multiple Choice Test (sample 1, one year later)	33	.20	.32
Primarily Stanford-Binet with 20 Item Multiple Choice Test (sample 2, 1 year later)	37	.57	.56

012 JOB INFORMATION TEST

Identification No.________________________

Full Name:________________________________ Today's Date ________________________

Directions: I am going to read some questions to you. These questions are some things that people say about jobs. You have a choice of three answers, (a, b, or c). One of these answers is right. Do not give an answer until you have fully heard the question. If you don't understand or did not hear a question, please ask me to repeat it or explain it to you.

1. Is Blue Cross for the benefit of the:
a) Government?
b) Worker?
c) Boss?

2. If you take a job paying $50. a week will you actually get paid:
a) less than $50. every week?
b) exactly $50. every week?
c) more than $50. every week?

3. Do Social Security deductions help you to put money aside for:
a) old age?
b) doctor's care?
c) accidents?

4. Working as hard as you can on a job:
a) is a waste
b) helps you to keep a job
c) is a dumb thing to do

5. Is a strike:
a) when the boss closes down the business?
b) when there is a layoff?
c) when the workers don't go to work?

6. Does a worker get unemployment insurance when he:
a) is fired or laid off?
b) gets sick?
c) quits a job?

7. When someone belongs to a union, does:
a) the boss pay dues to the union?
b) the worker pays dues to the union?
c) no one pays union dues?

8. Is the main reason for a time clock to:
a) show you what time it is all day long?

b) keep a work record of the time you come in and the time you leave?
c) let you know when the coffee break comes?

9. What is the paper called that the boss asks you to fill out when you come to him looking for a job?
a) insurance blank?
b) application blank?
c) unemployment blank?

10. When you start a job in June, would you get a paid vacation:
a) right away
b) a couple of months later?
c) a year or so later?

11. When you give the boss notice, it means that you:
a) like the job?
b) are asking for a raise?
c) will quit the job in a week or two?

12. If you do the job right, does the boss like:
a) fast work?
b) slow work?
c) any amount of work?

13. If your hands and face are dirty and you are in a hurry to leave at quitting time, is it a good idea:
a) to wash before leaving?
b) to rub your hands on a towel?
c) wait until you have more time to clean up?

14. When you lose a job, is one of the first places to go to:
a) the doctor's office?
b) the New Jersey State Employment Service?
c) the Social Security office

15. On Thanksgiving, should you expect to:
a) work on most jobs and get a bonus?
b) work on most jobs and get paid the same wages?
c) get off from most jobs?

16. During a rest period, if you have to call home for something should you:
a) use the boss's office telephone?
b) wait until you get home?
c) use a pay telephone where you have to put nickels or dimes in?

17. When money is taken off your paycheck for taxes, it is called:
a) income?
b) savings?
c) deductions?

18. If you have to clean up the place where you work at the end of the day anyway, should you:
a) wait til the end of the day so you won't have to keep things neat more than once?
b) keep things neat all day?
c) only clean up when the boss tells you to?

19. Do most people get a raise in pay:
    a) one or two months after they start on a job?
    b) one or two weeks after they start on a job?
    c) six months to a year or more after they start on a job?

20. When you go to work:
    a) would the boss say it's okay if you come in with dirty pants and shirt, and hair not combed?
    b) would the boss mind if you come in with dirty pants and shirt and hair not combed?
    c) it is not the boss' business how you are dressed?

* * *

Examiner's Comments:

____
Examiner

cb
Rev. 9/11/63
OCEC

MONEY COMPREHENSION AND RECOGNITION TEST

Description

This test is composed of 32 items covering areas of simple and complex money identification, ability to make coin combinations, simple and complex change making, and simple accounting. The client is presented with the appropriate section of the test booklet which has different denominations and combinations of money and several pay envelopes and cancelled checks. He is then asked to respond to specific questions.

Scoring

The total number of correct responses constitute the client's score. Time scores though recorded are not used at the present to evaluate the client.

Development

The Money Comprehension and Recognition Test was created as a situational test in which the client was asked to identify different coins or combinations of coins from a random group of coins, to determine salaries given certain information, and to total a series of priced items he was presented with and to further perform other numerical tasks. Scoring was in percent of items correct.

The presentation of price marked items was abandoned and the presentation of coins was standardized by placing the coins in groups in a booklet. Further the questions were rearranged to provide increasing difficulty for the subject and ease of administration. The representation of scores as percents which were then grouped according to a 5 point rating of test results, determining the suitability of selective placement for the client, was abandoned in favor of noting simply the number of correct responses. This procedure permits a more effective quantification of test results.

TABLE 13

Money Comprehension and Recognition
Test Correlations with Intelligence and Age

Sample Identification	Number in Sample	Correlation with Intelligence	Correlation with Age
Sample 1 (old test)	46	.11	−.04
Sample 2 (old test)	46	−.22	.17
Sample 1 and 2 combined (old test)	92	−.03	−.06
Sample 1 (new test)	31	.12	−.04
Sample 2 (new test)	37	.01	.19

Identification No. ________________

Full Name ____ Today's Date ____________________

013 MONEY RECOGNITION AND COMPREHENSION TEST

EXAMINER: Present the appropriate section of the test booklet to the testee and point to the appropriate parts of the booklet while asking the questions indicated on the form. Questions may be varied a little to prevent monotony of presentation. Write in testee's response, the time taken to respond and the accuracy of the response in designated spaces. The actual answer is preferable but an R for right and a W for wrong may also be used. Indicate the time regardless of accuracy. Continue to time an item until you are sure that testee has completed his response. Encourage testee as necessary by asking non-directive questions or repeating the question. Have paper and pencil in front of testee and suggest its use if necessary. At beginning of the test say to testee: I'd like to see how well you recognize and work with money and things concerned with money.

I. MONEY IDENTIFICATION—SIMPLE (How Much Money Is This?)

	Time	Ans.	Acc.		Time	Ans.	Acc.
1. Penny.	____	____	____	4. Quarter or Twenty-Five Cents.	____	____	____
2. Dime or Ten Cents.	____	____	____	5. Half Dollar or Fifty Cents	____	____	____
3. Nickel or Five Cents.	____	____	____	6. One Dollar.	____	____	____

II. MONEY IDENTIFICATION—COMPLEX (How Much Money Is This?)

	Time	Ans.	Acc.		Time	Ans.	Acc.
1. Eight Cents. .	____	____	____	4. Eighty Two Cents	____	____	____
2. Twenty Three Cents.	____	____	____	5. One Dollar Thirty Six Cents	____	____	____
3. Fifty Nine Cents.	____	____	____	6. Four Dollars and Twenty Cents	____	____	____

III. COIN COMBINATIONS

	Time	Ans.	Acc.
1. Show me 2 coins that make a half dollar	____	____	____
2. 2 coins that make a dollar	____	____	____
3. 3 coins that make a quarter	____	____	____
4. 3 coins that make a dollar	____	____	____
5. 4 coins that make a dollar	____	____	____
6. 4 coins that make a half dollar	____	____	____

IV. CHANGE RECOGNITION—SIMPLE (How Much Change Would You Get If You Bought Something For This Much And Gave This Much To The Storekeeper?)

	Time	Ans.	Acc.
1. Nine cents—quarter—(Sixteen cents).			
2. Seventeen cents—half dollar—(Thirty three cents).			
3. Fifty cents—half dollar—(No change)			
4. Forty one cents—one dollar—(Fifty nine cents).			

V. CHANGE RECOGNITION—COMPLEX (How Much Change Would You Get If You Bought Something For This Much And Gave This Much To The Storekeeper?)

	Time	Ans.	Acc.
1. Eleven cents and ten cents—quarter—(four cents)			
2. Seven cents, twenty cents, and nickel—thirty five cents—(three cents).			
3. Twenty five cents, twenty eight cents, and eleven cents—seventy cents (six cents)			
4. Fifty one cents, ten cents, twenty five cents, and ten cents—one dollar—(four cents)			

VI. ACCOUNTING—SIMPLE

	Time	Ans.	Acc.
1. Is the net amount enclosed correct on this pay envelope? (It is correct).			
2. Is the net amount enclosed correct on this pay envelope? (It is not correct.) What should it be? (Score correct only if twelve dollars forty-seven cents is given as answer to second question.).			
3. If you got paid this much in one week for twenty hours, how much did you get paid for one hour of work? (Eighty five cents.)			
4. Give me a reason why you couldn't cash this check. (Not made out to me, already cancelled.)			
5. What do these holes in this check mean? (Check is no good, its been cancelled.).			
6. If this check was good and it was made out to you, what is the amount you would get when you cashed it? (Two hundred sixty nine dollars and ten cents.)			

Rev. 3/64

WORK SAMPLE EVALUATION

Description

The Work Sample Evaluation is a situational test composed of 19 tasks which provide time and accuracy scores for most of the items. Typical tasks include small, intermediate and large “U” bolt assemblies, kick press operation, hand tool recognition, sorting of nuts and bolts, visual checking of packaged plastic forks and spoons and candle holders, counting and packaging of poker chips, and using a counting devise and an ohm meter.

Scoring

Time and error scores are used on most of the items. There is no cumulative total score for the entire test. In the packaging inspections of forks and spoons and candle holders, the client is asked to detect errors in sealing, content and color. The errors that the client makes in detection are then averaged and constitute a single score which is used to assess his ability rather than the three scores initially obtained.

Development

The Work Sample Evaluation originally consisted of the items given in the description plus additional situation items involving wrapping tasks, the use of a duplicator, shipping room activities, maintenance, messenger, and clerical work. Since most of the latter involved wastage of large amounts of paper and all of them involved excessive carrying out and supervision times, they had to be abandoned. Thus, while the tasks themselves might have proven useful, their inclusion in the work sample evaluation proved simply unmanageable. The total time for testing with all original tasks was 3 hours. With elimination of the specified tasks, the testing time was reduced to 2 hours.

An initial rating of clients on a 5 point scale ranging from satisfactory to unsatisfactory performance based on time and accuracy of a given task was abandoned in favor of the time and accuracy scores alone. This was done when it was found that the 5 point scale ratings were not sufficently discriminating between clients. Later it was found that time was the only really discriminating score.

The work sample items are identified below. Correlations of work sample items and intelligence and age are given in Tables 14 and 15. Table 20 provides test-retest results for retesting taking place after one year, and after 2 weeks.

The ability to perform gross and finer work tasks as represented in the work sample evaluation are neither affected by intelligence nor age to any significant degree. The test shows evidence of reliability for relatively short periods of time, only.

IDENTIFICATION OF WORK SAMPLE EVALUATION ITEMS

Item Code No.	Item
15T*	Small “U” Bolt Assembly

Item Code No.	Item
16T	Small Curler Assembly
17T	Medium "U" Bolt Assembly
18T	Large "U" Bolt Assembly
19T	Large Curler Assembly
20T	Kick Press Operation (10 hole punches)
21E**	Kick Press Operation, Errors
22T	Sorting and Stacking of Small Colored Chips (7/8")
23E	Sorting and Stacking Small Colored Chips, Errors
24T	Sorting Bolts
25E	Sorting Bolts, Errors
26T	Sorting Nuts
27E	Sorting Nuts, Errors
28C***	Recognition of Hand Tools, Correct Responses
29T	Counting and Stacking Large Colored Chips
30E	Counting and Stacking Large Colored Chips, Errors
31E	Visual Inspection of Plastic Forks and Spoons, Errors
32E	Visual Inspection of Plastic Candle Holders, Errors
33E	Measuring Number of Chips in 10 Columns, Errors
34T	Measuring Number of Chips in 10 Columns
35E	Checking 10 Fuses, Errors
36T	Checking 10 Fuses

***T—Time in seconds to complete the item.**
****E—Errors at end of time taken to complete item.**
*****C—Correct responses at end of time taken to complete the item.**

TABLE 14

Correlations of Work Sample Evaluation with Intelligence

Item Code No.					One Year Later			
	Sample I		Sample II		Sample I		Sample II	
	N	r	N	r	N	r	N	r
15T	43	–.20	45	–.23	36	–.19	38	–.10
16T	41	.04	43	–.08	36	.08	38	–.26
17T	43	.06	45	–.14	36	–.10	38	–.02
18T	43	–.03	45	–.27	36	.01	38	–.15
19T	41	.09	45	–.28	36	.12	38	–.30
20T	43	–.52	45	–.24	36	–.15	38	.13
21E	43	–.02	45	.11	36	–.10	38	–.06
22T	43	–.01	45	–.29	35	.02	38	–.41
23E	—	— *	—	—	—	—	—	—
24T	43	–.06	45	–.02	35	.09	38	–.04
25E	—	—	—	—	—	—	—	—
26T	43	–.18	45	–.26	35	–.37	38	–.15
27E	—	—	—	—	—	—	—	—
28C	43	.02	45	.39	36	.33	38	.15
29T	41	–.26	45	–.05	36	–.08	36	–.28
30E	—	—	—	—	—	—	—	—
31E	—	—	—	—	—	—	—	—
32E	—	—	—	—	—	—	—	—
33E	—	—	—	—	—	—	—	—
34T	43	–.14	44	.00	36	.01	37	.10
35E	—	—	—	—	—	—	—	—
36T	43	–.03	44	–.16	36	.05	37	–.29

*Dashes indicate data insufficiently continuous for product moment correlations.

TABLE 15

Correlations of Work Sample Evaluation with Age

Item Code No.	Sample I N	Sample I r	Sample II N	Sample II r	One Year Later Sample I N	One Year Later Sample I r	One Year Later Sample II N	One Year Later Sample II r
15T	43	.15	45	−.15	36	.14	38	.06
16T	41	.01	43	.04	36	−.01	38	−.27
17T	43	.00	45	−.22	36	−.08	38	−.01
18T	43	−.01	45	.01	36	.25	38	−.05
19T	41	−.10	45	−.07	36	−.01	38	−.30
20T	43	.13	45	−.08	36	.13	38	−.19
21E	43	.00	45	.31	36	.27	38	.03
22T	43	−.03	45	−.04	35	.00	38	.02
23E	—	— *	—	—	—	—	—	—
24T	43	.00	45	−.20	35	−.05	38	−.07
25E	—	—	—	—	—	—	—	—
26T	43	.01	45	−.23	35	.21	38	−.19
27E	—	—	—	—	—	—	—	—
28C	43	.08	45	.18	36	−.23	38	−.01
29T	41	.22	45	−.12	36	.10	36	.00
30E	—	—	—	—	—	—	—	—
31E	—	—	—	—	—	—	—	—
32E	—	—	—	—	—	—	—	—
33E	—	—	—	—	—	—	—	—
34T	43	.03	44	−.23	36	.15	37	−.17
35E	—	—	—	—	—	—	—	—
36T	43	−.40	44	.13	36	.14	37	−.01

*Dashes indicate data insufficiently continuous for product moment correlations.

JOB APPLICATION TEST

Description

This is a test of the client's ability to provide written information on an application of the type that a prospective employer might ask him to fill out if he were to apply for work. Information requested represents the usual range from name, address, and telephone number, to former work experiences, education, references, work applied for, and conditions of work which would be acceptable.

Scoring

Scoring of the job application is undertaken by an experienced rater, who has not seen the client, on the following traits:

a. legibility
b. completeness
c. accuracy
d. comprehension
e. appearance
f. general

The trait "general" is included to allow the rater to respond to the gestalt of the application and in this way to react to the non-specific factors of the job application. This is not intended as an average rating.

In assigning ratings to the different traits of the filled out job application a numerical code is used which is defined as follows:

1—a definite asset for employment
2—probably an asset
3—just adequate
4—probably a barrier
5—clearly a barrier
6—cannot rate

The rating "cannot rate" is used only when there is no basis for assigning a rating. Even though the information placed by the client on the job application may be incomplete, if the pattern of his limited responses is clear then a rating other than "cannot rate" should be used.

Development

The original practice of advising the client to select a job from a list of jobs given him so that he may fill out a typical job application several days later was abandoned as both administratively ineffective and ineffective in terms of the client's motivation or his ability to deal with the request.

The job application form itself still retains substantially its original form. However, the original three point rating of "definitely acceptable for employment," "possibly acceptable" and "not acceptable" did not allow sufficient discrimination between clients and was modified to the six point rating scale given above.

Three raters, holding supervisory positions in a rehabilitation setting rated the job applications and then resolved any differences between the ratings among themselves. When it was found that one rater was consistently closest to the group ratings he was then used as the sole rater. This effected considerable savings in time and cost of the rating procedure.

To determine if raters from a rehabilitation setting would tend to rate a client more leniently than a rater in an industrial setting who would be likely to hire the client, the ratings made joint by the three raters from the rehabilitation setting were compared to each of the two industrial raters and to the average ratings of the two raters. Good to fair agreement with the industrial raters was obtained with some of the differences attributable to the differences expressed by the industrial raters among themselves. The same rating by each rater was made for about 50% of the cases with equal percents being rated higher or lower than the original rehabilitation ratings. These results suggest that other than random differences do not occur in the ratings of industrial or rehabilitation raters when they are compared to each other.

A decided lack of correlation between any of the six traits used in rating the job application and intelligence or age is demonstrated by data given in Table 16. On the other hand, relatively high intercorrelations between the rated traits are indicated by Table 18. There is some justification for using the one "general" score to represent entire test performance.

TABLE 16

Job Application Test Correlations with Intelligence and With Age

Trait*	N	Correlation With Intelligence	With Age
Legibility	83	−.01	−.03
Completeness	82	−.10	−.12
Accuracy	68	−.06	−.17
Comprehension	82	.02	−.09
Appearance	81	.02	−.15
General	82	−.08	−.13

TABLE 17

Job Application Test Trait Intercorrelations

Trait*	A	B	C	D	E	F
Legibility (A)	—	.67	.78	.72	.74	.71
Completeness (B)	—	—	.89	.85	.62	.85
Accuracy (C)	—	—	—	.88	.68	.88
Comprehension (D)	—	—	—	—	.67	.88
Appearance (E)	—	—	—	—	—	.66
General (F)	—	—	—	—	—	—

*Data are based on 5 point rating scale. Cases rated "cannot rate" were not used in the analysis.

JOB INTERVIEW TEST

Description

This test is a tape recorded interview with a client to determine his ability to verbalize his motivation, awareness of job conditions and other traits related to competitive employment. The purpose is to permit a rating of the client in an interview situation with a trained interviewer.

Scoring

Scoring of the tape recorded interview test is undertaken by an experienced rater, who has not seen the client, on the following traits:

- a. Relationship with the interviewer
- b. Speech
- c. Poise and self-confidence
- d. Clarity of job goals
- e. Understanding of interviewer's questions
- f. General alertness
- g. Willingness to adapt to job conditions
- h. Grasp of facts about himself
- i. Work motivation
- j. General interview impressions

The above traits are defined to the rater who then rates them by the use of a numberical code defined as follows:

1—a definite asset for employment
2—probably an asset

TABLE 18

Job Interview Test Correlations with Intelligence and with Age

Trait*	N	Correlation With Intelligence	With Age
A**	–	—	—
B	74	–.27	.15
C	73	–.18	.00
D	73	–.15	–.03
E	74	–.18	–.10
F	73	–.26	.04
G**	—	—	—
H	74	–.24	.03
I	74	–.21	.13
J	74	–.23	.14

*See Text for trait identification. Data are based on 5 point rating scale. Cases rated as "cannot rate" were not used in the analysis

**Total number of cases were insufficient for analysis.

3—just adequate
4—probably a barrier
5—clearly a barrier
6—cannot rate

The rating "cannot rate" is used only when there is no basis for assigning a rating. It is not used, for example, if the client consistently avoids answering a question which would have relevance to the trait to be rated.

Development

The original practice of advising the client to select a job from a list of jobs given him several days before the actual tape recorded role playing interview was abandoned as both administratively ineffective and ineffective in terms of the client's motivation or ability to carry through on the request that he prepare himself adequately for the interview.

The major changes effected for this test were in the increased definition of traits to be evaluated in the interview and in the increased formalization of the interview procedure. While several clients inquired about the presence of the tape recorder during the interview there was no real resistance to its use.

Initially three raters holding supervisory positions in a rehabilitation setting rated the tape recorded job interviews and then resolved among themselves any differences in their ratings. When it was found that one rater was consistently closest to the group ratings he was then used as the sole rater. This effected considerable savings in time and cost of the rating procedure.

To determine if raters from a rehabilitation setting would tend to rate a client more leniently than a rater in an industrial setting who would be likely to hire the client, the ratings made jointly by three raters from the rehabilitation setting were compared to each of two industrial raters and to the average ratings of the two raters. There was a fair to good overall agreement between raters from a rehabilitation setting and raters from an industrial setting. Some of the variability appeared due as much to differences between the industrial raters themselves as to differences between industrial and rehabilitation raters. The industrial rater was more likely to be lenient in his ratings of a client he listens to in a tape recorded job interview than was a rehabilitation rater. This conclusion suggests that willingness and desire of rehabilitation personnel to assist clients does not predispose them toward leniency toward the client.

Table 18 indicates correlations of the different traits with intelligence and with age. Low but definite correlations exist between the traits and intelligence. (The higher the intelligence, the higher the rating—the fact that the correlations are negative are simply a function of the rating procedure.) Generally, age appears as being unrelated to the traits rated.

The intercorrelations between traits given in Table 19 range from moderate to high thus suggesting some underlying characteristic or characteristics between the traits themselves.

TABLE 19

Job Interview Test Trait Intercorrelations

Trait*	A	B	C	D	E	F	G	H	I	J
A**	—	—	—	—	—	—	—	—	—	—
B	—	—	.67	.56	.51	.62	—	.54	.57	.61
C	—	—	—	.76	.59	.71	—	.75	.70	.76
D	—	—	—	—	.62	.71	—	.71	.68	.71
E	—	—	—	—	—	.74	—	.67	.66	.70
F	—	—	—	—	—	—	—	.78	.73	.76
G**	—	—	—	—	—	—	—	—	—	—
H	—	—	—	—	—	—	—	—	.79	.80
I	—	—	—	—	—	—	—	—	—	.90
J	—	—	—	—	—	—	—	—	—	—

TABLE 20

The Reliability of the OCEC Test Battery Items Over a Short Period (Two Weeks) and a Longer Period (One Year)

Test Name	2 Week Reliability 1965-66 Population	1 Year Reliability E 64	C 64	E 63	C 63
Job Information	.31	—	—	—	—
Money Recognition	.85	.63	.31	—	—
Purdue (Right hand)	.53	.09	.30	.41	.56
" (Left hand)	.48	.32	.10	.24	.49
" (Both hands)	.66	.32	.33	.46	.80
" (R L + B)	.75	.30	.49	.38	.74
" (Ass.)	.80	.75	.66	.68	.80
Porteus	.66	.47	.47	—	—
Job Interview (General)	.78	—	—	—	—
Work Sample Evaluation—Timed Items					
Number 15	.53	.63	.09	.27	.68
16	.35	.62	.35	.29	.49
20	.74	.50	.49	.22	.15
22	.79	.36	.06	.24	.10
24	.30	.26	.36	.44	.36
26	.43	.59	.47	.03	.67
29	.41	.39	.26	.41	.31
31	.66	(.38)	(.28)	(.03)	(.15)
34	.65	.16	.22	.12	.30
36	.78	.25	.55	.26	.32

Appendix D

Preliminary Follow-Up Studies

THE FOLLOW UP STUDY OF AUGUST 1964

Tentative Findings on "Success" Criteria

Success criteria, such as Rehabilitation Commission closure, employment, family functioning, formal and informal community participation are being developed to assess the impact of the Project on the experimental group as compared with the control group. Both the definition of the criteria and changes in the service program and in the research instruments does not permit anything other than viewing the findings as possible indications.

a. The Rehabilitation Closure Criterion (Used by the New Jersey Rehabilitation Commission):

Status	Control Group	Experimental Group	Sum
All except those below *	33	19	52
Case Closed—Other Reasons	1	1	2
In Extended Training	3	18	21
Rehabilitatated	4	12	16
Sums	41	50	91

***This category includes cases of employment awaiting 60 day period before being judged rehabilitated or needing further investigation before further action may be taken.**

$\chi^2 = 17.86$ d.f. = 3 $P < .01$ Significant

b. The Employment Criterion (Being Developed at the Center):

Status	Control Group	Experimental Group	Sum
All except those below*	10	8	18
Not employed and not in training	11	10	21
Achieved short employment and functioned well	7	11	18
Achieved Stable employment or in Appropriate training	11	19	30
Sums	39	48	87

***This category includes primarily cases planning to return to school or enter a trade school. Several of the cases have also been institutionalized at the time of rating.**

$\chi^2 = 2.35$ d.f. = 3 $P < .05$ Not Significant

Rehabilitation Closure Criteria of the New Jersey Rehabilitation Commission and the Employment Criterion being developed at this Center represent two distinctly different criteria. The Commission criterion of "rehabilitation" through demanding that the client be employed at least 30 days is different from the "stable employment" criterion of the Center in that the time of employment at the present time has not been specified (though generally defined as several weeks with good prospects of continuing) and it has been found necessary to add the component of "appropriate training" to indicate reasonable rehabilitation at a specified point in time.

c. Additional follow-up data:

	Follow-up of August 1964		Follow-up of May 1965	
	Control Group	Experimental Group	Control Group	Experimental Group
Contacted	39	48	41	42
Rehabilitated	4	12	10	24
Employed	11	19	23	30
*Returned to Project School	—	—	7	17
*Extended Training in Other Schools	—	—	8	11
Formal Community Involvement	Undetermined		19	19
Informal Community Involvement	Undetermined		13	12
**Court History	Undetermined	14	5	2

*Since the follow-up represents present status the return to school or in extended training was not relevant as a criterion during the August follow-up

**Verified for experimental group as of August 1964. In the follow-up of May 1965, the numbers refer only to new court history admitted by clients.

It becomes clear from a review of the May 1965 follow-up that the members of the experimental group as individuals were involved in simultaneously more work, school, and formal and informal community involvement than the control group, even though on a single criterion comparison, only the rehabilitation criterion and the combined return to school or in extended training criterion significantly differentiates the control and experimental groups by favoring the experimental group.

MAY 1965 FOLLOW-UP OF THE 1963-1964 POPULATION WITH AN EVALUATION OF SELECTED FOLLOW-UP DATA AGAINST SIX "SUCCESS" CRITERIA

In August, 1964, a follow-up study was conducted of the students enrolled in the Experimental and Control Groups served in 1963-64. These data were reported in the Second Progress Report of the Project to the Vocational Rehabilitation Administration. In May, 1965 another follow-up study was conducted of the same sample.

Follow-up data were gathered for 83 members of the 1963-64 sample which consisted of 41 students in the control group and 42 students in the experimental group. Sources of data included: students 44, parents 24, siblings 8, other relatives 5, and the New Jersey Rehabilitation Commission 2. The failure to contact 17 students was attributable to the fact that the student's current address was unknown in 7 cases, the student could not be reached at the present address in 9 cases, and the student was institutionalized in one case.

Table 22 provides a listing of the 6 criteria against which selected information from the follow-up was evaluated. Also provided in this table are the actual number of cases and the per cent of cases falling into a given category for the control and experimental groups, chi square values determined in evaluating the significance of the differences between the experimental and control groups, and the statement of significance of the value computed.

TABLE 21

May 1965 Follow-up Data Compared with "Success" Criteria

	Control Group (N = 41)		Experimental Group (N = 42)			
	No. of Cases	%of Contacts	No. of Cases	%of Contacts	Chi Square	Significance
Closed as Rehabilitated by the Rehab. Commission	10	24%	24	57%	9.20	.01
Returned to Original School	7	17%	17	41%	4.45	.05
Returned to Any School for Training	15	37%	28	67%	7.52	.01
Employed Competitively	23	56%	30	71%	2.11	None
Involved in Formal Community Agency Programs	19	46%	19	45%	—	None
Involved in Informal Community Activities	13	32%	12	29%	—	None

Note: The number of cases falling in any of the success criteria categories are not mutually exclusive, i.e. a student may reflect "success" on more than one of the criteria.

The column on significance in Table 22 readily shows that students regarded as rehabilitated by the Rehabilitation Commission and students who returned either to school or to school and/or other training represented a significantly greater number among the total of students in the experimental group in contrast to the total number of students in the control group.

Competitive employment and formal or informal community involvement failed to identify membership in the control or experimental group.

Of the varied "success" criteria that can be used to judge progress in a given program some may and others may not differentiate between membership in a control or experimental group. It would appear reasonable to assume that even though a single success criterion might be appropriate for an investigation, that other criteria undoubtedly exist and should be made explicit so that a more meaningful measure of the impact of an experimental program might be obtained. Project efforts in this direction are continuing.

APPENDIX E

FINAL FOLLOW-UP STUDY: THE SUCCESS OF INTERVIEW EFFORTS AND THE NATURE OF CONTACTS

TABLE 22

Summary of Interview Efforts in the Follow-up Studies of March and October, 1966

	March, 1966				October, 1966		Combined		
	1963-64 Population		1964-65 Population		1965-66 Population		Population		
	Exp.	Cont.	Exp.	Cont.	Exp.	Cont.	Exp.	Cont.	Total
Completed Interviews	37	33	43	25	45	41	125	99	224
Unobtainable Interviews									
1. Unable to contact client or other informant.	1	4	—	1	—	3	1	8	9
2. Uncooperative, or gave insufficient information.	—	—	1	—	1	1	2	1	3
3. Address unknown.	12	9	3	22	4	5	19	36	55
4. Client at Penal Institution*	—	3	1	1	—	—	1	4	5
5. Client Deceased	—	1	—	1	—	—	—	2	2
Total	50	50	48	50	50	50	148	150	298

*Institutionalized clients on whom interview information was obtainable, are not included in this category.

TABLE 23

Summary of the Sources of Information in the Follow-up Studies of March and October, 1966

Informant	1963-64 Population		1964-65 Population		1965-66 Population		Combined Populations		
	Exp.	Cont.	Exp.	Cont.	Exp.	Cont.	Exp.	Cont.	Total
Client	30	25	30	18	29	29	89	72	161
Mother	4	4	8	5	12	6	24	15	39
Father	1	3	—	—	—	2	1	5	6
Guardian	—	—	1	—	1	—	2	—	2
Other Relative	1	1	4	2	1	1	6	4	10
Friend	—	—	—	—	1	1	1	1	2
School	—	—	—	—	—	2	—	2	2
Other	1	—	—	—	1	—	2	—	2
Total	37	33	43	25	45	41	124	99	203

Appendix F

FOLLOW-UP QUESTIONNAIRE

Client:
Date:
Informant: (Name and Relationship):

I'm ________________________________ from the Occupational Center of Essex County. You may remember that while you were still at the Montgomery Street School that we tested you, and you may even have been at our workshop. We tried to do many things and now we are trying to find out how successful we were. We would therefore like to ask you some questions, if that is okay.

Present Employment

1. Are you working now? (If no, go to question 9.)
2. How long have you had the job?
3. What sort of work are you doing?
4. How many hours a week do you work?.
5. What is the hourly pay? (If piecework, give average hourly income.)
6. How did you get the job? (Through what agency, person, or technique.)
7. Is this a temporary or permanent job? (Determine in client's response whether it is the client or the employer that views the job as temporary.)
8. Would you be interested in any other kind of job? (Find out "what kind?" or "Why not?")

GO TO QUESTION 16

Present Un-Employment

9. How long have you been out of a job?
10. Why is that?
11. Are you looking for a job now?
12. (If yes) How are you going about it.
13. (If no) Why not?
14. Have you refused any jobs that have been offered to you.
15. (If yes) Why?

Past Employment

16. What kind of Job did you have last? (Before the present one, if presently employed.)
17. What sort of work was it?

18. How many hours a week did you work there?

19. How much did you get an hour?

20. How did you get the job?

21. How long did you work on this job? (Give inclusive dates.)

22. Tell me what other jobs you've had before this one and for how long. (Fix the chronology of the jobs.)

Present Education or Training

23. Are you going to any kind of school or for any kind of training now? (If no, go to question 29.)

24. What is the name of the school?

25. What are you studying?

26. When did you begin?

27. When will you finish?

28. How did you find out about the school or training opportunity? (Through what person, agency, or technique?)

Past Education or Training

29. When was the last time that you were going to any kind of school for training?

30. Why did you leave?

31. What was the name of the school? If Montgomery Street School, go to question 36, otherwise continue below.)

32. How did you find out about it? (Agency, person or technique.)

33. What were you studying?

34. Did you like the program? (Find out "Why?" or "Why not?")

35. What other schools or training did you start since leaving Montgomery Street School?

School	Course of Study	Inclusive Dates	Reason for Termination

Court History

36. Have you ever been in trouble with the law? (If no, terminate the interview, otherwise proceed with next question.)

37. When was the last time?

38. For what?

39. Was the case decided yet?

40. What was the decision?

41. How about other times? What sort of trouble did you get into?

Offence	Time of Occurrence	Court Decision

TERMINATE INTERVIEW

APPENDIX G

FINAL FOLLOW-UP STUDY: PROJECT POPULATION ACTIVITIES

TABLE 24

Summary of Current Project Population Employment and Training Activities*

	1963-4 Population				1964-5 Population				1965-6 Population				Combined Populations					
	Exp.		Cont.		Exp.		Cont.		Exp.		Cont.		Exp.		Cont.		Total	
	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)
Employment																		
Part Time	4	(11%)	1	(3%)	8	(19%)	7	(28%)	8	(18%)	7	(17%)	20	(16%)	15	(15%)	35	(17%)
Full Time	27	(73%)	20	(60%)	14	(33%)	1	(4%)	12	(27%)	7	(17%)	53	(43%)	28	(28%)	81	(39%)
Total	31	(84%)	21	(64%)	22	(51%)	8	(32%)	20	(44%)	14	(34%)	73	(59%)	43	(43%)	116	(57%)
In School or training																		
Montgomery School	—		3	(9%)	13	(30%)	12	(48%)	21	(47%)	24	(59%)	34	(28%)	39	(39%)	73	(36%)
Other School	4	(11%)	2	(6%)	2	(5%)	1	(4%)	4	(9%)	—		10	(8%)	3	(3%)	13	(6%)
Job Corps	—		1	(3%)	1	(2%)	2	(8%)	1	(2%)	—		2	(2%)	3	(3%)	5	(2%)
Youth Corps	4	(11%)	1	(3%)	3	(7%)	2	(8%)	—		—		7	(6%)	3	(3%)	10	(5%)
Total	8	(22%)	7	(21%)	19	(44%)	17	(68%)	26	(58%)	24	(59%)	53	(43%)	48	(48%)	101	(50%)
No work, No school and not in training	5	(14%)	8	(24%)	10	(23%)	6	(24%)	6	(13%)	8	(20%)	21	(17%)	22	(22%)	43	(21%)
Total N Studied	37		33		43		25		45		41		124		99		203	

*These are non-exclusive activities—i.e. some subjects are involved in more than one

Note: %figures are given as the %of that total group studied.

TABLE 25

Summary of Project Population Employment and Training Activities Since Leaving School or Project*

	1963-4 Population				1964-5 Population				1965-6 Population				Combined Population					
	Exp.		Cont.		Exp.		Cont.		Exp.		Cont.		Exp.		Cont.		Total	
	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)
Employment																		
Part time, only	2	(5%)	3	(9%)	13	(30%)	8	(32%)	5	(11%)	9	(22%)	20	(16%)	20	(20%)	40	(20%)
Full time, or both full and part time	35	(95%)	27	(82%)	22	(51%)	8	(32%)	17	(38%)	12	(29%)	74	(60%)	47	(47%)	121	(60%)
Total	37	(100%)	30	(91%)	35	(81%)	16	(64%)	22	(49%)	21	(51%)	94	(76%)	67	(67%)	161	(79%)
In School or Training																		
Montgomery	5	(14%)	8	(24%)	13	(30%)	12	(48%)	21	(47%)	24	(59%)	39	(31%)	44	(44%)	83	(41%)
Other School	12	(32%)	4	(12%)	4	(9%)	2	(8%)	5	(11%)	—		21	(17%)	6	(6%)	27	(13%)
Job Corps	—		2	(6%)	3	(7%)	3	(12%)	2	(4%)	1	(2%)	5	(4%)	6	(6%)	11	(5%)
Youth Corps	5	(14%)	3	(9%)	5	(12%)	2	(8%)	1	(2%)	—		11	(9%)	5	(5%)	16	(8%)
Total	22	(59%)	17	(52%)	25	(35%)	19	(76%)	29	(64%)	25	(37%)	76	(61%)	61	(61%)	137	(67%)
No work, no school and not in training	—		2	(6%)	4	(9%)	—		3	(7%)	5	(12%)	7	(6%)	7	(7%)	14	(7%)
Total N Studies	37		33		43		25		45		41		124		99		203	

*These are non-exclusive activities

Note: % figures are given as the % of that total group studied.

APPENDIX H

The Relationship Between Success Criteria and Selected Sub-Group Characteristics

TABLE 26

Success Criteria as a Function of Intelligence According to School Files and More Recent Testing at OCEC

Success Criteria	IQ School Files					IQ (Recent testing by OCEC)				
	75 + Over (N = 84)		Under 75 (N = 142)			75 + Over (N = 35)		Under 75 (N = 25)		
	N	(%)	N	(%)	χ^2	N	(%)	N	(%)	χ^2
Employment										
Current Full Time	31	(37%)	53	(37%)	< 1	22	(63%)	10	(40%)	3.06
Current Full or Part Time	46	(55%)	70	(49%)	< 1	25	(71%)	12	(48%)	3.39
Anytime since Project Full Time	45	(54%)	76	(54%)	< 1	27	(77%)	15	(60%)	1.31
Anytime Full or Part Time	64	(76%)	97	(68%)	1.59	32	(91%)	17	(68%)	3.90*
Schooling or Training										
Any since Project	53	(63%)	83	(59%)	< 1	21	(60%)	17	(68%)	< 1
At or Graduated Montgomery	37	(44%)	53	(37%)	< 1	9	(26%)	7	(28%)	< 1
In or Completed Advanced Training	16	(19%)	13	(9%)	4.62*	9	(26%)	6	(24%)	< 1
Productive Activity (Work and/or Training)										
Current	68	(82%)	114	(80%)	< 1	30	(86%)	21	(84%)	< 1
Anytime since Project	78	(93%)	134	(94%)	< 1	35	(100%)	25	(100%)	—

Significant, p. < .01

TABLE 27

Success Criteria as a Function of Age and Social Maturity

	Age					Social Maturity Quotient				
Success Criteria	16 + Over (N = 116)		Under 16 (N = 110)			85 + Over (N = 68)		Under 85 (N = 70)		
	N	(%)	N	(%)	χ^2	N	(%)	N	(%)	χ^2
Employment										
Current Full Time	52	(45%)	29	(26%)	9.09**	32	(47%)	35	(50%)	< 1
Current Full or Part Time	69	(59%)	47	(43%)	6.35*	41	(60%)	40	(57%)	< 1
Anytime since Project Full Time	81	(70%)	40	(35%)	25.42**	40	(59%)	50	(71%)	2.42
Anytime Full or Part Time	97	(84%)	64	(58%)	17.84**	57	(84%)	59	(84%)	< 1
Schooling or Training										
Any since Project	63	(54%)	73	(66%)	3.42	45	(66%)	36	(51%)	3.08
At or Graduated Montgomery	32	(29%)	54	(49%)	11.08**	24	(35%)	17	(24%)	2.00
In or Completed Advanced Training	21	(18%)	8	(7%)	4.99*	13	(19%)	11	(15%)	< 1
Productive Activity (Work and/or Training)										
Current	95	(82%)	88	(80%)	< 1	56	(82%)	54	(77%)	< 1
Anytime since Project	112	(97%)	100	(91%)	2.19	64	(94%)	68	(97%)	< 1

*Significant, p<.05
**Significant, p<.01

TABLE 28

Success Criteria as a Function of Previous Work History

Success Criteria	Previous Work Experience				
	Yes (N = 117)		No (N = 102)		
	N	(%)	N	(%)	χ^2
Employment					
Current Full Time	45	(39%)	35	(34%)	< 1
Current Full or Part Time	64	(55%)	48	(47%)	1.27
Anytime since Project Full Time	65	(56%)	55	(54%)	< 1
Anytime since Project Full or Part Time	87	(74%)	70	(69%)	< 1
Schooling or Training					
Any since Project	64	(55%)	67	(66%)	2.74
At or Graduated Montgomery	38	(33%)	35	(34%)	< 1
In or Completed Advanced Training	15	(13%)	14	(14%)	< 1
Productive Activity (Work and/or Training)					
Current	93	(90%)	83	(81%)	< 1
Anytime since Project	109	(93%)	96	(94%)	< 1